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**Auditor General**  
of British Columbia

**A Major Renovation:  
Trades Training in  
British Columbia**

November 2008

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The Honourable Bill Barisoff  
Speaker of the Legislative Assembly  
Province of British Columbia  
Parliament Buildings  
Victoria, British Columbia  
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Dear Sir:

I have the honour to transmit herewith to the Legislative Assembly of British Columbia my 2008/2009 Report 10: A Major Renovation: Trades Training in British Columbia.

John Doyle, MBA, CA  
*Auditor General of British Columbia*

Victoria, British Columbia  
November 2008

copy: Mr. E. George MacMinn, Q.C.  
Clerk of the Legislative Assembly



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# Auditor General's Comments



John Doyle  
*Auditor General*

Skilled trades workers play a key role in a well functioning economy and help British Columbians enjoy their comfort and safety. Demand for skilled workers is strong and, with many experienced workers approaching retirement age, it is essential enough people complete skilled trades programs to take their place. The long-term success of the trades training system will result in the right amount of skilled trades workers with the right skills and abilities to do their jobs safely and properly.

The Industry Training Authority (ITA), the Crown corporation responsible for leading this system, has implemented a number of significant changes over the last several years intended to improve the trades training system.

Introducing significant changes across a multi-partner system is not an easy task. Perhaps not surprisingly, we found some areas where this could have been done better initially. The ITA did not sufficiently consult with, or provide enough guidance and support to, its partners and stakeholders. This has led to poor relationships that have hampered the training system. However, it is not too late to mend fences. A change in leadership at the ITA has resulted in increased efforts to communicate, consult and coordinate with stakeholders. This is just a start, but a promising one.

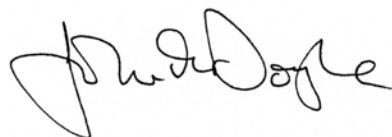
The report contains 12 recommendations to address shortcomings identified in four key areas: roles and responsibilities, quality assurance, funding allocations and performance reporting. To address these, the ITA will require a clear plan of action and a commitment to resolving outstanding issues with its partners and stakeholders.

This audit was primarily an assessment of change management — a theme that I plan to revisit in future work. How an organization like the ITA chooses to manage change is critical to its success.

# Auditor General's Comments

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I would like to thank the ITA and Ministry of Advanced Education and Labour Market Development staff for their cooperation and professionalism during this audit. Their response to my recommendations demonstrates their commitment to continually improving management of the trades training system.



*John Doyle, MBA, CA  
Auditor General of British Columbia*

*Victoria, British Columbia  
November 2008*



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# Executive Summary



British Columbians depend on skilled trade workers to build houses, schools and hospitals, to fix cars, and to ensure provision of running water, electricity and heat in homes and offices. Trades training—the subject of this audit—is therefore critical to ensuring that trade workers have the requisite knowledge and skills.

Apprenticeship is the most common form of trades training and is the primary focus of this audit. Typically it takes four years for apprentices to complete their training: 80% is provided on-the-job, and 20% is provided in various training institutions.

The trades training system in British Columbia involves a number of organizations and stakeholders, all with different interests and mandates. The Industry Training Authority (ITA) is the Crown corporation responsible for leadership within the system. When the ITA was established in 2004, the government directed it to create a system that was led by industry and responsive to industry's need for more flexible and accessible trades training programs.

To that end, the ITA has set up a new governance structure: sector-based Industry Training Organizations (ITOs). Each is tasked with managing the training programs within its industry sector (e.g., construction or automotive). The ITA is also working with others to update, re-design and create new trades programs and delivery approaches to better meet industry needs.

At the same time as attending to these significant changes, the ITA has been carrying out its core responsibilities, such as updating trade program standards to ensure they meet current industry standards and managing in-school funding, that is, the funding it provides to the various secondary schools, public colleges and other institutions that deliver training to apprentices.

## Audit purpose and scope

The purpose of our audit was to examine how well the government and the ITA were leading and managing the trades training system. Specifically, we assessed whether effective leadership exists to facilitate a cohesive trades training system and whether mechanisms and processes exist to:

- enhance industry involvement in trades training;
- safeguard the quality of trades training;

## Executive Summary

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- allocate and manage funding effectively for in-school trades training; and
- report publicly on performance.

When we started this audit in 2007, the ITA reported to the Ministry of Economic Development (now called the Ministry of Technology, Trade and Economic Development) and had been doing so since June 2005. Before this, the Ministry of Advanced Education (now called the Ministry of Advanced Education and Labour Market Development) had been responsible for trades training. In June 2008, responsibility for trades training was transferred back to the Ministry of Advanced Education and Labour Market Development. While we included both ministries in our audit, this report focuses primarily on the period from 2005 to June 2008, before this more recent change in responsibility.

Our examination was performed in accordance with assurance standards established by the Canadian Institute of Chartered Accountants. We did not audit outcomes or the ITA's youth programs. Our preliminary assessment determined that the operation of these programs varied to such an extent across the province that we could not conclude on how well they are being managed without expanding our work significantly beyond our original plan.

(See Appendix A for more details about our audit.)

## Overall conclusion

While the provincial government and the ITA have established a new model for trades training, the ITA has not provided sufficient guidance and direction to its partners and stakeholders to put this model into practice. When assuming responsibility for leading the trades training system, the ITA did not sufficiently consult or collaborate with its stakeholders in developing its plans and strategies. Given the significance of the changes being introduced and the number of stakeholders involved, this was a large omission. The ITA's current efforts to improve communication and coordination are promising, but the system still lacks:

- a clear definition of the roles and responsibilities of the ITOs;
- a comprehensive, clear and transparent quality assurance program to support program development;
- adequate information to inform in-school funding allocations; and
- adequate disclosure of the basis on which reported performance measures are made.

**Moving forward, the ITA needs to develop, in consultation with key stakeholders, an action plan to address the issues identified in this report.**

## Key findings and recommendations

Current leadership communication and consultation efforts need to be maintained

In its first three years, the ITA introduced significant changes to the trades training system. Managing change successfully anywhere requires strong leadership. In this case, it is especially true because of the many stakeholders with different interests and mandates. Effective leadership in this environment requires extensive communication, consultation and coordination.

We found that the ITA introduced changes with little consultation and coordination, which affected its relationship with some of its key stakeholders. Recent leadership changes at the ITA have resulted in more effort being applied to communication and consultation, and this has improved the relationship between the ITA and some of its stakeholders. However, continued effort is needed to maintain these recent gains.

The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

Creating the ITOs was a large undertaking for the ITA. While it planned for and provided some support for developing the ITOs (such as high level policies and guidelines), it launched the organizations without sufficiently assessing the associated risks or fully articulating key policies. As a result, the ITOs quickly ran

into administrative problems. The ITA has been monitoring the development of the ITOs and has made some adjustments to its policies and practices to address the issues that have arisen.

Moving forward, we consider two areas in particular still need to be addressed. The ITA and the ITOs need to work together to clarify roles and responsibilities. Similarly, the ITA needs to work with the ITOs to assess what the costs are for delivering on each of these responsibilities, and to make sure that the funding model is appropriate and sustainable.

### Quality assurance needs to be strengthened

One of the ITA's main responsibilities is to ensure a quality trades training system, which means making sure that apprentices receive current, relevant training. To do this, those who train apprentices need guidance provided by documented program standards, learning resources and assessment tools.

We found that the ITA's quality assurance practices are not sufficient to ensure the quality of trades program development and delivery. The policies and practices that exist to manage quality need to be brought together and better defined to form a clear and comprehensive quality assurance program. As part of this, methods for monitoring training providers and apprenticeship sponsors should be established to provide assurance of effective program delivery.

### Information needs to improve to ensure good resource allocation

Funding to support in-school trades training accounts for about 85% of the ITA's expenditures (\$88 million of \$103 million for 2008/09). Effective allocation of this funding requires a good understanding of the demand for trades training, the costs of delivering the training and the capacity of the system to meet this demand.

We found that the ITA's funding allocation decisions are consistent with its priorities, but are based on inadequate or incomplete information about demand and delivery costs. We have therefore recommended that more work is undertaken by key players in the trades training system to produce high quality information for determining funding decisions.

We also found that the Ministry of Advanced Education and the Ministry of Economic Development co-sponsored a review in 2007 of public college's capacity to meet demand for trades training. However, this assessment did not lead to a plan to address the recommendations provided, and neither the ministries nor the ITA do such assessments on a regular basis. We therefore recommended that such assessments should be done periodically and actions should be undertaken to address any issues or opportunities that are identified.

## Performance reporting needs to be accurate, transparent, and supported by effective records management



*Arc welder, utilizing learned skills and all safety precautions.*

The ITA reports on its performance through its annual service plan report. For such reporting to be useful for assessing performance, it must be both relevant and accurate. For this audit, we focused on the accuracy of six of the ITA's twelve performance measures included in its 2006/07 annual report.

We found that five of the six measures were reported accurately. One measure, youth apprenticeship, was inaccurately reported because the ITA did not apply its own definition of youth when it calculated the result. We also found poor records management throughout our assessment and instances of inadequate disclosures of performance measure definitions and calculations. We provided three recommendations in the detailed section of this report to address these issues.







# Responses





## Management response to OAG's audit of the Industry Training Authority

The Industry Training Authority (ITA) is pleased to provide a formal response to the Office of the Auditor General's report entitled "*A Major Renovation: Trades Training in British Columbia.*" As the title acknowledges, government tasked the ITA with bringing about significant change when it was created four years ago amid the urgency of growing labour shortages that threaten the continued prosperity of the province. The report is an accurate and constructive reflection of some of the challenges associated with this change, and provides helpful recommendations that align with actions that, in most cases, are already under way.

The ITA is encouraged that the report's first finding recognizes and commends the ITA for its renewed and continuing efforts in the critical leadership area of communication and collaboration. Implementing change to develop an industry-driven trades training system requires effective communication and collaboration with the myriad players involved in the province's trades training system.

The ITA gauges success through outcomes. Given this, the ITA is pleased that the report notes the expansion in the number of registered participants in the training system in BC by more than 165 per cent, from 14,500 in 2004 to close to 40,000 today. In addition, the ITA's youth programs have increased the participation of high school students in skilled trades training by more than 500 per cent. The number of employers sponsoring apprentices is up by more than 55 per cent.

The OAG's audit is timely in that the ITA is still a young organization. One quarter of its lifespan has been under the helpful gaze of this audit process. The suggestions and areas of concern noted are very useful as we strive to continue building on the successes and challenges of the past four years.

Since the responsibilities of the ITA and the Ministry of Advanced Education and Labour Market Development (the Ministry) differ, the ITA and the Ministry have elected to prepare separate but coordinated responses to this report. The following discussion focuses on the OAG's findings directed specifically to the ITA and the progress to date in implementing them. A comprehensive action plan to address this report will be developed and published by February 25, 2009.

# Industry Training Authority Response

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- 1. Finding:** Current leadership communication and consultation efforts need to be maintained.

*Response:* The ITA appreciates the audit team's recognition of progress in leadership and communication. We are committed to continuous improvement in these critical areas. As indicated above, an action plan to address the issues identified in this report, and informed by our ongoing stakeholder engagement research, will be developed by February 25, 2009 and communicated to stakeholders and the public.

- 2. Finding:** The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs.

*Response:* During the summer of 2008, ITA staff and Board worked collaboratively with the ITOs to develop the framework for a revised policy outlining ITO roles and responsibilities and corresponding funding. This package will form the basis of a new ITO operating and funding policy to be presented to the ITA board for approval in January, 2009.

- 3. Finding:** Quality assurance needs to be strengthened.

*Response:* The ITA agrees that quality assurance is paramount, and we are currently in the process of further strengthening our processes in this area. We will be building upon several key processes that currently exist, including:

- A thorough private trainer designation process and requirements for standards attestation for public trainers
- Inclusion of explicit trainer standards in Program Outlines, which are a key part of the designation requirements for private trainers and attestation requirements for public trainers
- Specifications for Program Outlines, Tables of Specification, and exam banks

*As well, most trades training in BC takes place within the "Red Seal" program in which apprentices must achieve national standards, ensuring skilled labour mobility across the country. Success on inter-provincial Red Seal exams is a strong assurance of the quality of training and the skills of BC tradespeople. The "pass rate" for BC apprentices writing Red Seal exams is 78 per cent compared to a national rate of 71 per cent.*

*The results of our annual stakeholder research also provide assurance as to the quality of BC's training programs and the quality of their delivery. Results of the ITA's 2006-07 survey indicate:*

- *91% of apprentices satisfied with work-based training experience; 91% satisfied with technical training experience.*
- *79% of employers satisfied with usefulness of skills and knowledge taught during apprenticeship technical training; 95% feel their apprentices make a positive contribution to their business.*

**4. Finding:** Information needs to improve to ensure good resource allocation.

***Response:** In its own response to this report, the Ministry describes the work it has undertaken with BC Stats toward an improved supply/demand information management system. The new model is expected to be ready in early 2009.*

*The capacity of the trades training system to meet demand was assessed in 2007 and 2008. The ITA will continue to carry out these periodic assessments.*

*We are working with the BC Trades Training Consortium to develop a more transparent understanding of the hard costs associated with trades training so that we may jointly review the current funding model.*

**5. Finding:** Performance reporting needs to be accurate, transparent, and supported by effective records management.

***Response:** The ITA is strongly committed to reliable and transparent performance reporting and we agree with the Auditor General's recommendations in this regard. That is why we have been working for the past two years to replace the outdated Apprentice Information Management System (AIMS), which is used for storing and tracking apprenticeship training records and is the basis for much of the ITA's performance reporting. The new system will launch in January, 2009 and will significantly enhance the ITA's performance reporting and document management capabilities. In addition, the ITA has commenced a review of its performance measures, calculation methodologies and related internal controls.*

# Industry Training Authority Response

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In conclusion, we wish to acknowledge the efforts of the staff of the Office of the Auditor General (OAG) to understand the complexities of trades training in our province and for their recommendations, which will help us further strengthen some key processes.

We believe the ITA has made significant strides in the past four years toward developing one of the most successful industry training systems in Canada, as evidenced by outcomes. A recent Statistics Canada report identified BC as having the highest growth in apprenticeship registrations in the country and a completion rate for apprenticeships that is 10 per cent above the national average. It also noted that BC apprentices who completed their training were employed at a rate of 94 per cent and earning above-average incomes.

Where we are not already addressing issues raised in this report, we will incorporate its findings and recommendations into our planning as we continue building an industry training system for BC that is second to none.



## Ministry of Advanced Education and Labour Market Development response to Office of the Auditor General's review of the Trades Training System

The Ministry of Advanced Education and Labour Market Development and the Industry Training Authority (ITA) are committed to ensuring British Columbia has an effective, responsive and successful system which addresses the needs of B.C.'s trades training participants, and the industries that employ them. While the Ministry and ITA have a joint interest in the success of apprenticeship training, each organization has unique responsibilities as they apply to trades training. For this reason, the ITA and the Ministry have prepared separate but coordinated responses to the report.

The Ministry of Advanced Education and Labour Market Development (Ministry) is pleased to respond to the Office of the Auditor General's review entitled "*A Major Renovation: Trades Training in British Columbia*".

The Ministry would first like to acknowledge the success of the ITA and its partners, the Industry Training Organizations and training providers, who together continue to build on the significant achievements realized over the past four years.

These accomplishments include ensuring the availability of relevant and responsive training; increasing access to training for underrepresented groups; attracting additional young people to the trades; providing training through efficient, effective and flexible delivery methods; ensuring labour mobility; and improving customer service. In addition, the ITA has established a partnership with the post-secondary education institutions who deliver high quality trades training programs throughout all regions of the province.

Since the ITA's inception in 2004, government has increased funding for trades training from \$77 million to over \$100 million annually and provided an additional \$15 million for equipment and mobile training facilities. This funding has allowed the ITA and post-secondary institutions to add 7,000 new apprenticeship training spaces by 2009 to meet the needs of apprentices and employers. The province also introduced a training tax credit program for apprentices and employers participating in apprenticeship training.

The recommendations provided by the Office of the Auditor General confirm that government and the ITA are moving B.C.'s trades training system in the right direction. Since the audit was originally undertaken, the Ministry along with the ITA has acted and implemented new processes which address many of the Auditor General's recommendations.

The following Ministry comments focus on the Auditor General's finding that information needs to improve to ensure good resource allocation.

While the review focussed on processes rather than outcomes, it is important to highlight the quality of trades training in the province. Currently in B.C., trades training is delivered through a variety of established post-secondary institutions. Training in forty-five trades are provided in accordance with the Inter-provincial Standards of the Red Seal Program—providing standardization of training and certification programs, and greater national labour mobility for skilled workers. These standardized national credentials along with the excellent track record of post-secondary institutions provides a training model that stresses workplace excellence and safety, and ultimately greater job opportunities for people working in them. As recent Statistics Canada survey results demonstrate, more people (including youth) are participating in apprenticeship training programs and are more satisfied with their results, as are their employers. We appreciate that more measures can be taken to further assure this quality continues, and we view the recommendations around quality assurance, as an opportunity to build on these strengths and improve our achievements to date.

The Ministry agrees that the training system needs high quality information to anticipate labour market challenges and opportunities and to support decisions and investments. It is for this reason the Ministry is developing comprehensive labour market information and products, forecasts and analysis, occupational analysis, and sector/economic impact analysis. The Ministry will work with the ITA, Industry Training Organizations, and post-secondary institutions to ensure timely and accurate labour market demand information to inform the planning and delivery of trades training.



## Ministry Response

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The Ministry agrees that trades training system capacity needs to be assessed regularly and gaps addressed. The Ministry, in consultation with the ITA, conducted a comprehensive review of the post secondary trades training facility capacity in 2007 and has followed up on that review with a number of initiatives related to enhancing system capacity. In addition to the Ministry's current annual capacity review which identifies space shortages and surpluses in instructional spaces, including shops, the Ministry will continue to work with the ITA and post-secondary institutions to conduct periodic capacity reviews that focus exclusively on trades training facilities.

The Ministry concurs with the recommendation that the ITA and the Ministry work with the post-secondary institutions to ensure funding decisions are informed by a full understanding of what it costs to deliver trades training. The ITA is currently working with the post-secondary institutions to review the current funding model. For its part, the Ministry will provide assistance to this process as required. The Ministry will continue to consult closely with the ITA to address the recommendation that the Ministry ensure that its funding allocations to public colleges for the purposes of supporting trades training are coordinated with the ITA.

In conclusion, we thank the Office of the Auditor General and its staff for their comments and suggestions for further enhancing the effectiveness of the British Columbia industry training system.





# Detailed Report





## Society's reliance on skilled trades makes trades training essential

There are skilled trades occupations in every industry sector of British Columbia's economy (see side bar). Skilled trade workers build houses, schools, hospitals, roads and factories. They fix cars and trucks. They ensure that our homes have running water, electricity, cable and heat.

Ensuring these workers have the knowledge and ability to do their jobs properly is the purpose of trades training. Public safety and comfort, a well functioning economy, and quality of life are all closely tied to an infrastructure built and maintained by skilled trades.

### Examples of skilled trade occupations by industry sector\*

#### Construction industry

- Carpenters and Cabinet Makers
- Electricians
- Plumbers

#### Manufacturing industry

- Millwrights
- Machinists
- Welders

#### Service industry

- Bakers and Cooks
- Cosmetologists (Hairstyling)
- Horticulturists

#### Transportation industry

- Automotive Service Technicians
- Automotive Body Repairers
- Heavy Equipment Mechanics

\* For a more detailed listing, see Ellis Chart at: <http://www.ellischart.ca/home.jsp>

**Apprenticeship** is a common model for trades training. Traditional apprenticeship involves a formal learning relationship between a master trade worker (journeyman) and a student (apprentice). Although new models of apprenticeship are emerging (see sidebar next page), most existing trades programs today involve about 80% of an apprentice's training time being work-based and the remaining 20% being provided in schools (public colleges, private institutions and secondary schools) or on-line. In-school training is generally divided into four levels, normally taken in order (one level per year). The length of apprenticeship can vary by apprentice, but most programs require four years to complete, including both in-school and work-based training time. Individuals can seek employment with an employer who is willing to sponsor them as an apprentice, or they can enroll in a pre-apprenticeship program in high school or at a community college.

## Traditional and “New Model” Trades Training?

### Traditional model and some of its challenges:

- In-school training is generally six weeks in length. Often, for various reasons, employers are unable or unwilling to release apprentices for six weeks of in-school training. This contributes to low completion rates for trades training.
- In-school trades training has been criticized as being too theoretical and not sufficiently tied to competencies required in the workplace.
- Employers are not sufficiently involved in program development.

### Ideas to resolve these challenges include:

- Industry-led program development—employers lead program development activities.
- Full work-based training—all training competencies are taught on the job.
- Modular training—training competencies are grouped into modules and students progress through at a self-paced rate.
- Progressively credentialed training—training competencies are grouped by level and students receive credentials upon completion of each level.

“New model” trades may include any one of the above or may be combined with the traditional model. The ITA runs a blended system of new and traditional approaches.

## The number of apprentices has grown in the province, with most concentrated in five trades

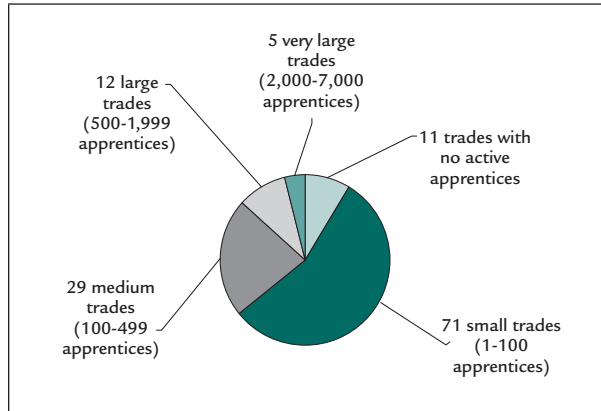
The number of apprentices registered with the ITA in active programs has grown steadily in the last four years. As of March 31, 2008, British Columbia had 39,786 apprentices registered in active ITA programs (not including pre-apprenticeship students).

The ITA currently lists 128 apprenticeship trades programs on its website (see Appendix B for the full listing). In terms of apprentice numbers, these programs range in size from very small to very large (Exhibit 1). As at March 31, 2008, just over half (Exhibit 2) of all apprentices were located in one of five very large trades: Automotive Service Technician, Carpenter, Cook, Construction Electrician, and Plumber.

# Background

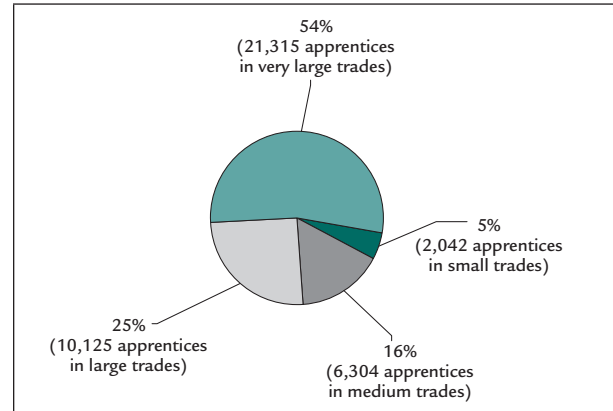
## Exhibit 1

Number of trade programs by size, March 31, 2008



## Exhibit 2

Percentage of apprentices by program size, March 31, 2008



Source: Compiled by the Office of the Auditor General from information provided by the Industry Training Authority

## Trades training involves many stakeholders with different mandates

The skilled trades training system in British Columbia involves a large number of participating organizations and stakeholders, as shown in Exhibit 3. Some of these groups include:

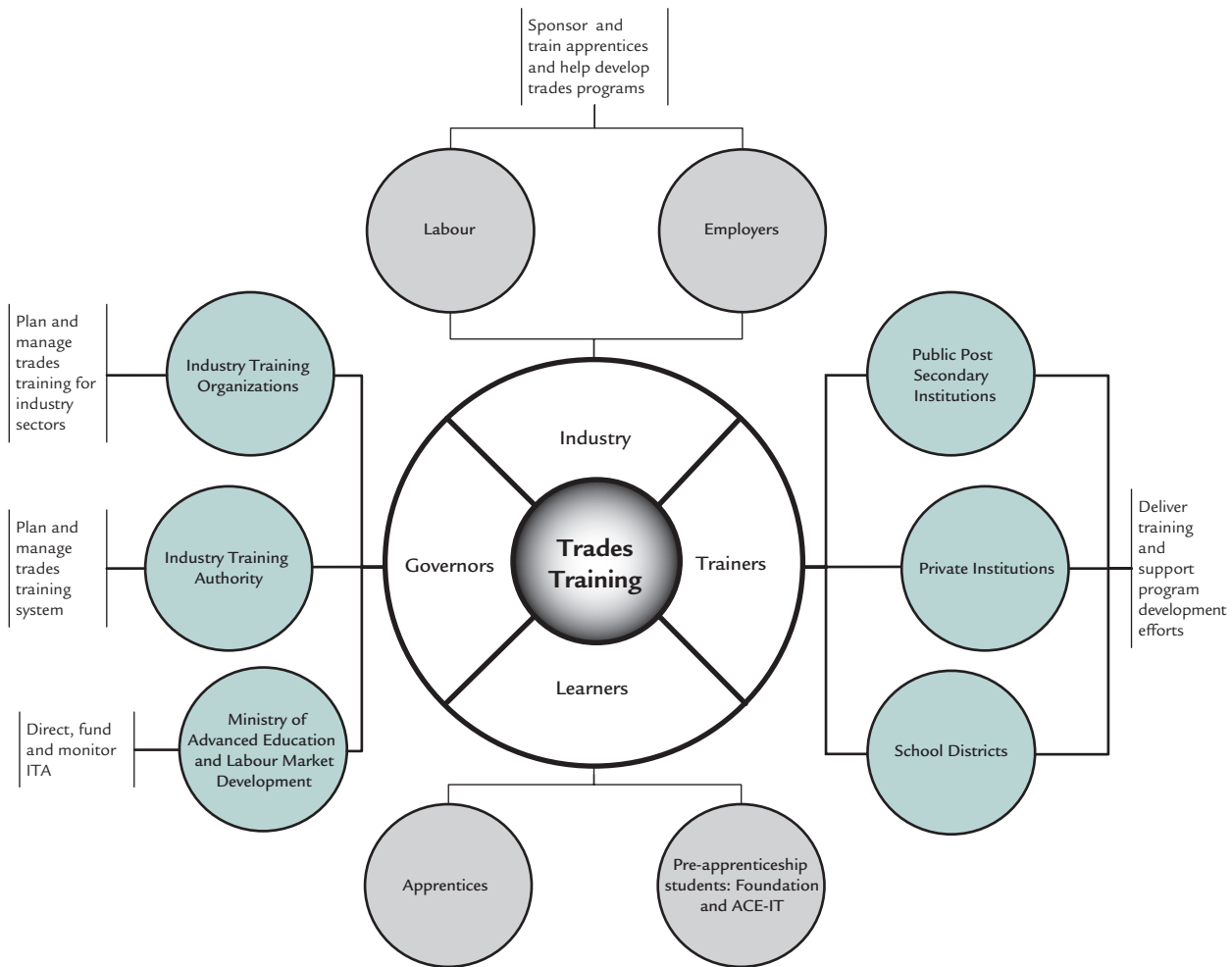
- **Governors:** The ITA is the Crown corporation responsible for leading and managing the trades system in British Columbia. It currently reports to the Ministry of Advanced Education and Labour Market Development which is responsible for overseeing and providing funding and direction to the ITA. Industry Training Organizations are industry-directed entities that report to the ITA and are responsible for developing and managing industry training programs within a particular industry sector.
- **Industry:** This includes employer and labour associations, as well as individual employers and journeypersons who sponsor and train apprentices and help develop trades programs.
- **Trainers:** These are the public and private colleges and school districts that provide in-school (or online) training for learners and help develop trade programs.
- **Learners:** These are apprentices and pre-apprenticeship students who take trades training.

# Background

Making the system even more complex are the different interests, mandates, roles and responsibilities that each organization and stakeholder group holds.

## Exhibit 3

### Key trades training stakeholders



Source: Office of the Auditor General of British Columbia



# Background

## The trades training system has undergone significant change in recent years

The trades training system has been subject to a great deal of change in recent years (Exhibit 4).

The Provincial Apprenticeship Board governed the skilled trades training system until 1997. It was replaced with the Industry Training and Apprenticeship Commission (ITAC). Difficulties, however, led to government closing ITAC in 2002. For the next two years, the Ministry of Advanced Education managed trades training while at the same time seeking input from key stakeholders in the system on what changes were needed.<sup>1</sup>

### Exhibit 4

#### The evolution of trades training in British Columbia

	To 2001	2001	2002	2003	2004	2005	2006	2007	2008
<b>Ministry Responsible for Trades Training</b>	Various Ministries	Ministry of Advanced Education (June 2001 to June 2005)				Ministry of Economic Development (June 2005 to June 2008)			Ministry of Advanced Education and Labour Market Development
<b>Trades Training Governance</b>	1997–2002: The Industry Training Apprenticeship Commission (ITAC) operates the trades training system in British Columbia  Pre-1997: The trades training system is operated by the Provincial Apprenticeship Board		Trades training system operated by Ministry of Advanced Education during transition to new governance structure  ITAC and its field offices close	Industry Training Authority Act passed	Industry Training Authority (ITA) opens and assumes responsibility for the trades training system  First three Industry Training Organizations (ITOs) are launched by the ITA  The ITA creates three additional ITOs  New Chair of Board of Directors and CEO for the ITA are appointed				

Source: Office of the Auditor General of British Columbia

<sup>1</sup> For more information, see the Ministry of Advanced Education’s 2002 discussion paper: *A New Model for Industry Training in British Columbia* and its 2003 report: *Consultation Summary of the New Industry Training Model for British Columbia*.

# Background

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## Industry Training Organizations

- Automotive Training Standards Organization (ATSO)
- Horticulture Education BC (HortEd BC)
- Residential Construction Industry Training Organization (RCITO)
- PROPEL (a division of go2, representing the hospitality industry)
- Construction Industry Training Organization (CITO)
- Resource Industry Training Organization (RTO)
- BC Transportation Industry Training Organization

In 2004, the newly created Industry Training Authority (ITA) was established. The ITA was directed to address some key concerns that ITAC could not resolve—namely, lack of flexible and accessible industry-led training, and the need for improved outcomes. The board governance model for the ITA is also organized differently. Rather than having a stakeholder-led board, the ITA has a non-stakeholder board consisting of nine members, predominantly employers.

To help achieve its mandate, the ITA launched an initiative to create ITOs—separate industry-led organizations—to manage key components of the authority’s mandate including:

- labour market analysis,
- trade program development,
- trades training promotion and marketing,
- planning for the delivery of training programs,
- employer and apprentice liaison, and
- apprentice/trainee assessments.

Seven ITOs have been established (see sidebar). The creation of ITOs represents a major change to the governance structure of the trades training system.



## Current leadership communication and consultation efforts need to be maintained

Given the number of changes being introduced and the number and diversity of the stakeholders involved in British Columbia's trades training system, strong leadership by government and the ITA is required to ensure effective communication, consultation and coordination.

We concluded that, with the exception of the ITOs, the ITA's stakeholders are clear on their roles and responsibilities. However, past leadership of the trades training system suffered from insufficient communication, consultation and coordination.

In introducing changes to the trades training system, the ITA leadership did not adequately consult and communicate with its key stakeholders. The result has been acrimony and distrust between the ITA and some key stakeholders. More recently, under new leadership, the ITA has invested more time and effort in communication and consultation. This has resulted in improved relationships and some progress.

However, more effort is required in the following areas:

- ITO roles and responsibilities need more definition;
- in-school funding needs to be better coordinated; and
- performance measurement reporting needs to be clearer.

We discuss each of these issues in more detail in the next four sections.

*We recommend that the Industry Training Authority develop an action plan in consultation with key stakeholders to address the issues we have identified in this report.*





# The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

The trades training system in British Columbia depends to a large extent on employer support and engagement to operate effectively. Recognizing this, the provincial government created the ITA and directed it to develop an industry-driven training system. However, it did not specify how this was to be accomplished. The ITA was left to determine how best to make sure the system was industry-led. It chose to introduce a significant change that was new to British Columbia and to Canada. The ITA researched, designed and launched ITOs—sector-based organizations that are led by industry-based boards and tasked to carry out various activities related to trades training in their sectors.

To manage such a change effectively, we expected the ITA to have:

- developed plans and strategies to facilitate industry leadership based on a good understanding of industry needs and a consideration of options; and
- implemented their plans and activities by assessing and managing risks and providing adequate supports such as funding, policies and guidelines to ensure success.

We concluded that the ITA developed the ITO model without conducting adequate industry consultation to understand their needs. It also launched the ITOs with limited supports, but has since made some adjustments to address problems. Two problem areas in particular remain: development and communication of clearer roles and responsibilities, and identification of the resources required to ensure the long-term success of ITOs.

## Plans to create an industry-led system were based on limited consultations and an insufficient consideration of options

The ITO model is a significant change over the previous trades training system. The latter kept activities centralized under the Industry Training and Apprenticeship Commission and relied on industry advisory bodies to guide the revisions and development of training programs.

Given the goal to shift to an increase in industry leadership, we expected the ITA to have considered a range of options for how to achieve this, and to have consulted with industry representatives before establishing plans.

## The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs



*Carpenter apprentice assembling bench with journeyman's guidance.*

We found that the ITA did not carry out a comprehensive needs assessment or broad-based consultation before launching the first three ITOs in April 2005. The ITA judged the support of industry for the ITO model primarily from limited input by three industry sectors: automotive, horticulture and construction. The ITA knew that each of these sectors had proposed similar, industry-led approaches to government before the ITA was created. But the ITA's own consultations were limited to informal and undocumented discussions that were held with representatives of a small number of stakeholder groups.

As well, the ITA did not produce a full assessment of options before selecting the model it chose for British Columbia. The corporation researched industry-led standards bodies in other countries and then developed an ITO framework for British Columbia that was not identical to any of the models researched. It modified the New Zealand model to avoid some of the challenges faced by that country. In particular, the ITA chose to keep control of the funding being provided to training institutions and limit the number of ITOs.

## The ITO model was launched without adequate risk assessment or supports

Developing the ITO model as the new approach to achieving industry leadership in the trades training system was a complex prospect. We expected the ITA to have performed a thorough assessment of implementation risks and developed sufficient policies, guidelines and frameworks to support ITO implementation.

## The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

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We found, however, that the ITA launched the ITO model without adequate risk management planning or sufficient implementation supports.

In January 2005, the ITA board and management identified in a one-page document the “top 10 risks” the authority faced. Included on the list was the failure of an ITO. The strategy proposed to manage this risk was simply to monitor ITOs and intervene only if the survival of an ITO was at risk. The list did not identify the failure of the ITO model as a potential risk, which would impact the system more than the failure of a single ITO. In June 2008, the ITA expanded its risk management plan. It now recognizes additional risks to the success of the ITO model and sets out strategies to address them. We did not assess the quality of the plan, and it is too soon to tell how effective it will be in helping the ITA manage its risks.

The ITA board of directors launched the first three ITOs in the same month that they were approved (April 2005). ITOs then began operating with only a skeletal policy framework from the ITA to guide them. The ITA left it largely to the newly formed ITOs, with support of their industry sectors, to establish their own administrative arrangements. Even when the next three ITOs were created—over a year after the first trio—supports and guidelines from the ITA were still insubstantial. Some ITOs told us that they would have benefited from having more support from the ITA to help them get started: from policies, practices and templates for human resources, contracts and accounting; to more orientation or training for new ITO CEOs/directors.

The ITA did provide some assistance for ITO start-up and development, such as making its own organizational templates available to ITOs upon request. However, lack of supports to ITOs in their early stages slowed the pace of their establishment and created some strained relationships between the organizations and the ITA. Most ITOs we spoke to told us that staff at the ITA seemed overextended and therefore were not sufficiently proactive or readily available to provide support or communicate changes to policies and processes. Some ITOs did emphasize, however, that when staff at the ITA were available, the support they provided was positive and helpful.

# The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

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## Support for ITOs has improved, and more is needed

Although the ITA launched the ITOs with little planning and supports, it has monitored their development and made adjustments to policies and practices as issues have arisen.

The ITA has created several mechanisms to monitor ITO progress:

- The ITOs must submit quarterly and annual financial and performance reports.
- The ITA is a non-voting member on each ITO board.
- The ITOs are subject to a governance and operational audit before assuming the complete range of responsibilities assigned to a fully operational ITO.
- The ITA has initiated and participated in three facilitated consultation sessions with ITOs (and, in one case, some additional industry groups interested in becoming ITOs).
- Informally, the ITA meets with ITOs individually on an ad hoc basis.

The ITA has responded to ITO concerns and suggestions by making adjustments to the model. However, ITOs have also stated that the absence of timely, effective communication from the ITA has sometimes resulted in frustrations.

## Roles and responsibilities need clarification

Since launching ITOs in 2005, the main adjustment made by the ITA to the ITO model has been to develop an “acceleration strategy.” This it did in 2006, creating a new, phased-in model for ITOs. In the new approach, an ITO moves through three stages of development. Each stage—start-up, development, and full service delivery—assumes a greater level of responsibility and works under a different funding formula (Exhibit 5).



# The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

## Exhibit 5

The stages of development in becoming an ITO

Start-up Stage (6–12 months)	Development Stage (12 months–3 years)	Full Service Delivery Stage (3–4 years)
<p>ITOs are required to:</p> <ul style="list-style-type: none"> <li>■ establish their board;</li> <li>■ select their CEO;</li> <li>■ develop their mandate, administrative and reporting infrastructure; and</li> <li>■ develop their Service Plan.</li> </ul> <p>The ITA also assigns responsibility for industry training programs to the ITO.</p>	<p>ITOs continue with their administrative responsibilities and begin to:</p> <ul style="list-style-type: none"> <li>■ take on program development activities;</li> <li>■ forecast demand for training;</li> <li>■ consult with key stakeholders; and</li> <li>■ conduct activities to increase employer and apprentice/trainee participation.</li> </ul>	<p>ITOs continue with the responsibilities assigned in the development stage and:</p> <ul style="list-style-type: none"> <li>■ take on increased responsibility for program development activities;</li> <li>■ act as a primary point of contact for employers and apprentices in their assigned programs;</li> <li>■ register apprentices/trainees in conjunction with the ITA;</li> <li>■ conduct various types of apprentice/trainee assessment;</li> <li>■ prepare training purchase plans;</li> <li>■ approve private training providers; and</li> <li>■ participate in ITA strategic initiatives.</li> </ul>

Source: Industry Training Authority Policies 6000 and 6001

We found a lack of clear and common understanding of ITO full service responsibilities. The document the ITA created that outlines key responsibilities for both the ITA and ITOs in the full service stage does not sufficiently describe the breadth and depth of the activities required. Furthermore, the ITA has not communicated clearly or consistently with ITOs—individually or as a group—what these roles and responsibilities are. As a result, the ITOs have different interpretations of their responsibilities. For example, there is not a common understanding as to whether the ITA or the ITOs should act as the primary point of contact for employers/sponsors and apprentices/trainees. The ITA has put this down as a full service activity in its ITO Operating Policy. However, one ITO told us it is beginning to act in this capacity before reaching full service, while another ITO said that the ITA removed this activity from the definition of full service.

*We recommend that the Industry Training Authority consult with Industry Training Organizations and industry to clarify roles and responsibilities and revise its policies and guidelines accordingly.*

# The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

## The ITO funding model is not based on an assessment of the costs of delivering services

### ITO funding framework

The current funding framework for ITOs is broken down into separate amounts for general full service activities and program maintenance. The total funding for each ITO varies. The current funding formula for the full service stage is \$100,000 plus 3.5% of the amount of funding that was dedicated to in-school training the previous year for the programs the ITO is responsible for (to a maximum of 10% of total training costs), plus \$20,000 per program for ongoing maintenance.

Closely tied to the need for clearer definition of roles and responsibilities is the issue of funding for ITOs. For ITOs to be successful, there needs to be a realistic and adequate funding model to support their activities. We found that while the ITA has developed a formula-based funding framework, it does not know to what extent it covers ITO costs.

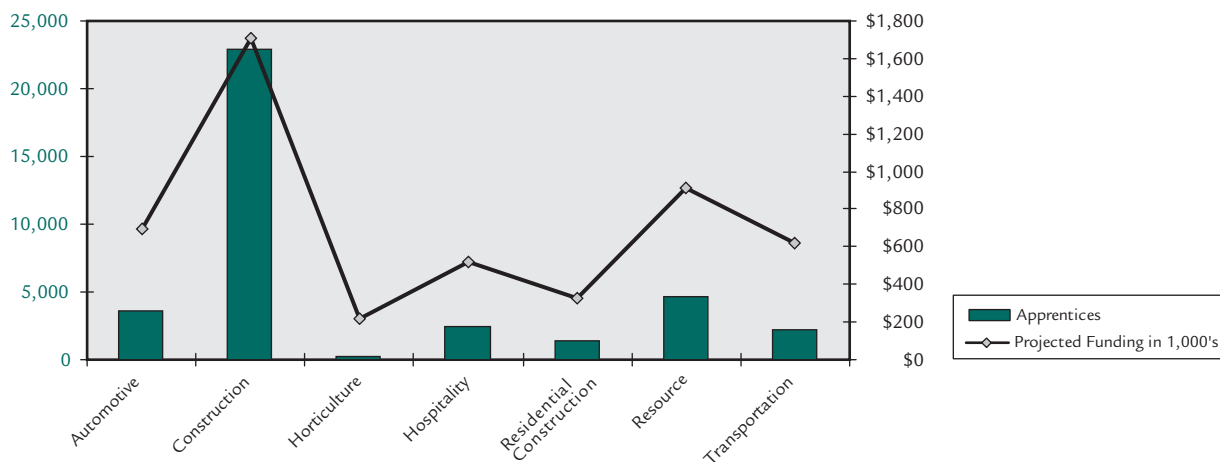
ITO funding is largely reliant on the ITA through a formula that is driven primarily by the number of apprentices/trainees taking in-school training and the number of trades programs assigned (see sidebar). The ITA also expects that ITOs will seek other sources of funding—applying for grants and/or other government funding,

creating fees for value-added service and leveraging funding from industry—to supplement the funds provided by the ITA.

Because of the differences in the sizes of the ITOs, the projected funding for an ITO at full service levels varies greatly (Exhibit 6).

### Exhibit 6

Number of apprentices in active programs (as of March 31, 2008)<sup>a</sup> and projected full-service funding by Industry Training Organization (as of July 2008)



<sup>a</sup> Please note that the Transportation ITO did not exist as of March 31, 2008; for ease of comparability we opted to allocate the number of apprentices that existed at the time to this ITO as if it did exist.

Source data: Industry Training Authority

## The Industry Training Organizations require clearer definition of responsibilities and an assessment of funding needs

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ITOs have varying perspectives on the sufficiency of the funding model for full service and are responding in different ways. For example, the Automotive ITO has moved ahead with full service, with some confidence that it will be able to carry out its activities as defined. The Construction ITO, on the other hand, recently completed an in-depth study of how it would implement the full service model. The analysis concluded that in order to carry out full service activities, the ITO would require \$3.6 million on an annual basis (with \$3.9 million in the first year)—in contrast to the \$1.7 million the ITA estimates it will be providing. The ITA has been in discussion with the Construction ITO regarding the conclusions of this scoping project, but at the time of our audit no decision or action had been taken.

*We recommend that the Industry Training Authority work with Industry Training Organizations and industry to determine the costs associated with each required responsibility and ensure the funding model is appropriate and sustainable.*





# Quality assurance needs to be strengthened

One of the ITA's main responsibilities is to ensure a quality trades training system. Such training helps ensure that skilled trade workers are able to do their jobs properly and safely. To ensure quality training, those who train apprentices need high quality program standards, learning resources and assessment tools. There also needs to be a mechanism for monitoring training to ensure it is being delivered appropriately.

We expected to find the ITA to have established a quality assurance program to help safeguard the quality of trades training program development and delivery.

We concluded the ITA's quality assurance practices are not sufficient to help safeguard the quality of trades program development and delivery. The policies and practices that exist to manage quality have not been brought together into a well defined and comprehensive quality assurance program.

## Program development has been challenging

Since assuming responsibility for the trades training system, the ITA has been updating programs that have not been reviewed for many years and fostering new programs. While it has updated or created a number of programs, its progress has been challenging.

For example, we expected that the ITA would have a system in place to track all of its training programs: when they were last updated; when they need to be reviewed next; and for programs currently under review, where they are at in the process. The ITA is tracking some of this information, but it does not have one system that keeps track of all of it.

We also found that the ITA was trying to do too much with too few people. All at once staff sought to foster industry-led program development, introduce new training models and comply with the ITA board's decision to keep the size of the organization small. Introducing new training models has been particularly challenging. The ITA did not provide sufficient guidance or support to industry in transitioning to these new models. As a result, in some cases it has taken considerable time and effort to learn from mistakes and address problems that have arisen.

## Program development quality assurance needs improvement

### What steps are involved in developing a program proposal?

Many steps are involved in developing a program, and not all steps are required for all programs. New programs and major revisions to existing programs require the most; regular or minor revisions to existing programs require the fewest.

- Step 1: Preliminary proposal. The ITA has provided guidelines on the content. Not required for regular or minor program revisions managed by ITOs.
- Step 2: The ITA reviews and approves preliminary proposal.
- Step 3: Final proposal preparation. Proposal format provided by the ITA. Includes the requirement to submit draft program standard and occupation analysis.
- Step 4: The ITA reviews final proposal.
- Step 5: Proposal approval and implementation. Implementation includes further development of program standards, assessment tools and teaching and learning resources for new programs.

Source: Information provided by the ITA.

Quality assurance requires due care and attention. We therefore examined the extent to which the ITA has established an effective quality assurance management system. Specifically, we looked for evidence that the ITA has:

- provided guidance to ensure quality program development;
- established effective links between program standards, learning resources and assessment tools; and
- monitored training providers and apprenticeship sponsors to ensure effective program delivery.

The ITA has provided some guidance for program development, but more is needed. There are guidelines for the program proposal process (see sidebar). These guidelines provide sufficient information on the proposal process, and on what information the ITA expects proponents to provide to obtain approval and funding for developing a program.

However, the ITA does not provide guidance on good practices for developing key documents that make up the program: the occupational analysis, the program profile and the program outline. These documents describe what competencies a trade requires and how these are to be taught and assessed. Quality assurance requirements have also not been clearly defined for these. Without such guidelines there is a risk that programs will be developed inefficiently and apprentices will not receive appropriate training.

***We recommend that the Industry Training Authority develop a comprehensive quality assurance program to help safeguard the quality of trades training. This should include good practice guidelines on how to develop occupational analyses, program outlines and program profiles.***

# Quality assurance needs to be strengthened

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## Efforts are being made to improve linkages between standards and learning resources and exams

### What is a common level exam?

A common level exam is an exam that is the same throughout the province regardless of where apprentices take their training. Most trades training programs in British Columbia include two to four levels of in-school training. At the end of each training level, apprentices are evaluated through final exams. Since the 1980s, training providers have separately maintained and administered their own set of level exams. To achieve some consistency across the system, the ITA is developing a set of common level exams for all active trades that include levels of in-school training.

We expected that once a program had been developed or significantly updated, learning resources would also be developed to ensure a strong link between standards, teaching and learning. Without this linkage, there is a risk that apprentices are not receiving the training they need to become quality trades workers.

We observed that the ITA did not have adequate guidelines or processes to ensure such a linkage. The ITA's policy is that it is the training institution's responsibility for updating existing learning resources, but there is no specific funding or mechanism to ensure that it is done consistently or at all. That said, the ITA told us that it understands that this is a significant issue that needs to be addressed.

We also looked for a strong linkage between program standards and assessment tools such as exams. We found that the ITA is making strides to improve these linkages. The Authority has launched an initiative to develop standardized exams by level (see sidebar) and is working on determining how best to administer these exams to apprentices throughout the province.

Developing fair and meaningful exam questions requires knowledge, skill and appropriate time and resources. The ITA has experienced problems with the quality of some exams. Therefore, recently it conducted a review of its exam development process. The review revealed a number of problems that needed to be addressed, such as creating a set of exam development standards. The ITA also drafted an exam development procedures manual in April 2008. Once finalized and distributed, the quality of exam question design should improve. The exam development process has also been newly mapped out and quality control mechanisms identified.

## Compliance monitoring of program standards is limited

Once programs have been developed and implemented, it is important to monitor them to ensure apprentices receive proper training and guidance. We expected that the ITA would have established processes (such as site visits and spot checks) to ensure training providers and apprenticeship sponsors follow program

## Quality assurance needs to be strengthened

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standards when training apprentices. We found instead that the ITA does not have any inspection programs in place to monitor program delivery.

The primary tool the ITA has available to monitor training providers is exam results. A greater-than-expected number of apprentices failing an exam may alert the ITA of a potential problem that needs investigating. To monitor apprenticeship sponsors, the ITA has even fewer options. It can monitor how apprentices are progressing in their training and contact an employer if a problem is noticed, but we found no evidence that the ITA has plans to do this. Such monitoring mechanisms are useful in alerting the ITA to a problem, but they are not as effective as inspections.

*We recommend that the ITA strengthen its compliance monitoring mechanisms to provide greater assurance that training providers and apprenticeship sponsors are following program standards.*





# Information needs to improve to ensure good resource allocation

Allocating funding to training providers for in-school training is one of the ITA's main functions and accounts for about 85% of its total expenditures. We expected the ITA, in supporting its funding decisions, to conduct regular assessments of demand for trades training and capacity of training providers to meet this demand. We also expected the ITA to develop plans and strategies to address gaps, and to allocate in-school training funding accordingly.

We concluded that there is a clear link between ITA's plans and its funding allocation, but that the data and information being used to support its decisions are weak.

## Trades training planning and funding requires better data and information

Effective allocation of funding for in-school trades training requires an accurate estimate of demand. To this end we expected the ITA to be conducting regular assessments of both industry and student demand using reliable sources of data and information. This would include current and projected labour market and economic data from Statistics Canada and BC Stats, as well as information from industry employers, training providers and apprentices.

We found that the information the ITA is using to allocate funding lacks sufficient industry input. The ITA's long-term plans include involving the ITOs in assessing demand for trades training and determining how to allocate funding accordingly.

However, for the years we examined (2006/07–2007/08), the ITA determined its funding needs and its allocations based primarily on college training plan submissions. These plans describe what classes each college expects to deliver for each of its trades programs. The ITA compares the college plans with the previous year's performance (that is, their utilization results) to gauge reasonableness and questions the institutions when submissions seem too optimistic.

# Information needs to improve to ensure good resource allocation

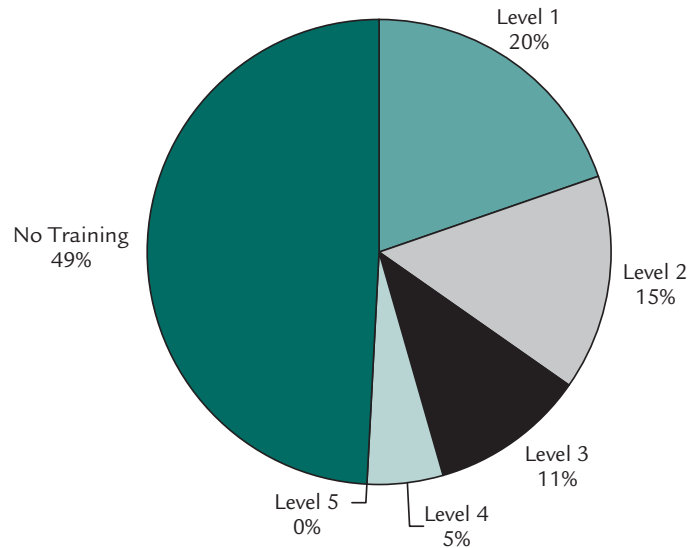
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We found that the information currently being used to estimate student demand needs improvements. One source of information is the ITA's apprenticeship database.<sup>2</sup> Reports from this system include the number of apprentices by level, trade and college region. However, this information is of limited help without additional analysis and research. For example, as of March 31, 2008, 49% of registered apprentices had not taken any in-school training, and the percentage of apprentices generally got smaller as the training levels got higher (Exhibit 7). No information has been collected from apprentices to better understand these results. As well, while some analysis of the data has been done to look for patterns that would help predict student demand, more is needed.

## Exhibit 7

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Apprentices by level of training completed (as at March 31, 2008)



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Source: Industry Training Authority

<sup>2</sup> The ITA tracks apprentice registrations and progressions in its database, the Apprenticeship Information Management System (AIMS). This system is being replaced by a new system called the Registry of Industry Training Achievements (rITA).

Another key information source used by both the ITA and the training providers to estimate student demand is waitlist information. The ITA asked for and received additional funding from government in 2007/08 and 2008/09 using the size of waitlists as a key part of its case for additional funding.

Waitlist information, however, has been misinterpreted. The ITA relies on each training provider to collect and submit information on its waitlists because there is no central system that collects and tracks this information. Instead, each institution manages its own trade student registration, scheduling and waitlist information, and there is no one common calculation method for determining waitlists. To assess the accuracy of this information, the colleges recently conducted an analysis of the waitlist information submitted to the ITA in the third quarter of 2007/08. They focused their analysis on six of the larger trades and found that the number of students on the waitlist was overstated by 940 (or about 34% fewer than the 2,748 that the institutions originally reported).

*We recommend that the Industry Training Authority, the Industry Training Organizations, the Ministry of Advanced Education and Labour Market Development and the colleges work together to produce high quality information for assessing demand for trades training.*

## Trades training system capacity needs to be assessed regularly and gaps addressed

To plan and allocate funding effectively, it is not enough to know the demand for trades training. The ITA also needs to understand what the capacity of the system is to meet the demand and develop strategies to address any gaps. This means that the ITA needs to know if there are enough qualified instructors and adequate facilities and equipment among its training providers to deliver the necessary training.

Assessing capacity is challenging for the ITA. A key part of capacity is facilities and equipment, but the ITA is not responsible for funding these—the Ministry of Advanced Education and Labour Market Development is. Therefore, to assess capacity, the ITA requires the assistance and cooperation of the ministry. We found that neither the ministry nor the ITA conducts regular assessments to determine facility capacity for trades training.

## Information needs to improve to ensure good resource allocation

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Autoservice technician trainee.

The Ministry of Advanced Education and the Ministry of Economic Development did co-sponsor an assessment in 2007 specifically to determine if the system had the capacity to accommodate the expansion of 7,000 more apprentices over the next three years. The resulting report, *Capacity Reviews for Trades Training in BC*, concluded that the public training system had the potential capacity to accommodate the 7,000 apprentices. The report also identified gaps in particular

trades and regions and provided recommendations for expanding capacity. We expected the ITA, the ministries and the colleges to work together to develop and implement a plan to address the gaps identified and to consider and respond to the recommendations. We found that no such plan was created, although some actions have been taken. For example, in the summer of 2008, the ITA and the ministry obtained an update from colleges on how many more students they could accommodate and on what they have done to increase capacity.

*We recommend that the Industry Training Authority, the Ministry of Advanced Education and Labour Market Development and the training providers work together to periodically assess the capacity of the trades training system to meet demand, and address any issues or opportunities identified.*

### The ITA has allocated funds in a manner that is consistent with its objectives, but needs information on costs

In looking at how the ITA is managing its funding for trades training seats, we expected to find it allocating its budgeted training resources according to its assessment of demand, and using mechanisms that help ensure value for money. We found that while the ITA is managing its in-school funding according to its priorities, it is doing so without information on what it really costs to provide in-school trades training.

**Utilization rate** refers to the proportion of available spaces within an in-school training program that was actually filled by apprentices/trainees.

In 2006/07, the ITA created new funding agreements (significantly revised in 2007/08 and 2008/09) to manage the funding it gives colleges to support their delivery of in-school trades training. Through these funding agreements, the ITA has ensured that its funding allocations are consistent with its priorities: apprenticeship training first, youth training second and adult pre-apprenticeship training last. Each agreement has clearly articulated these priorities and includes performance objectives (utilization targets), which the ITA regularly monitors. These funding agreements have motivated colleges to more closely manage enrolment, both individually and in a more coordinated way. Over the last two years, the utilization rate (see sidebar) for all institutions combined has improved, rising from 85.5% in 2006/07 to 90.0% in 2007/08.

However, these agreements also represented a significant change for British Columbia's public colleges. For the first time, colleges were facing financial penalties if they did not succeed in meeting the ITA's performance expectations (although these penalties were not to be imposed in the first year). Also, the ITA did not adequately consult or collaborate with the colleges in developing the 2006/07 agreements. While the ITA and the colleges did agree on the funding framework, the colleges did not agree with some of the terms contained within the actual agreements and refused to sign.

In 2007/08, under new leadership, the ITA and the Trades Training Consortium worked together to develop new funding agreements that each college signed. These agreements are an improvement over the 2006/07 ones because they better reflect the shared risk and responsibility that exists between the ITA and the colleges.

While we noted that both the ITA's relationship with the colleges and the level of coordination are showing signs of improvement, re-establishing trust between the ITA and the colleges will likely take time. Success is highly dependent on the ITA's continued efforts to communicate, consult and collaborate with the colleges, and on the willingness of the colleges to change.

# Information needs to improve to ensure good resource allocation



*Master Baker assists trainee with some hands-on guidance.*

## Information is lacking on what it costs to deliver in-school training

Funding agreements should be based on a reasonable understanding of what it costs to deliver in-school trades training. However, because the ITA does not have this information, it developed “price bands” to allocate funds. Price bands provide a set amount of funding for each trade program course. They assume a standard number of weeks of training and a

standard number of students per intake, and are based on historical apprenticeship funding information—not on an estimate of what it costs to deliver trades training.

According to the colleges, they need to supplement the funding they receive from the ITA with the block funding they receive from the Ministry of Advanced Education and Labour Market Development. However, we found no evidence that anyone has done a comprehensive analysis of costs to show there really is a gap between the ITA funding and what the actual cost is to deliver the trades training programs. Colleges do not typically track costs in this way. Doing so would require additional effort on their part and a willingness to share this information with the ITA and the ministry.

Lack of current information on the cost of in-school training for each trade program means it is impossible for the province to know whether the current funding being provided is enough to create a sustainable trades training system that meets industry standards.

***We recommend that the Industry Training Authority and the Ministry of Advanced Education and Labour Market Development work with the colleges to ensure funding decisions are informed by a proper understanding of what it costs to deliver trades training.***

## Coordination of funding between the ministry and the ITA needs improvement

The subsequent change of responsibility for overseeing the ITA—moved back to the Ministry of Advanced Education and Labour Market Development—occurred too late for us to see the impact of it on the cohesiveness of the system. However, with one less entity being involved, we expect coordination to be less complicated now.

Moving forward, we believe that the ITA and the Ministry of Advanced Education and Labour Market Development will need to address the following issues we uncovered during the course of the audit.

- The ministry and the ITA have been operating independently, essentially as two entities with different mandates, competing for limited resources. The ministry, for example, continued to provide operating funding to the institutions for trades training. In the last two years, the ministry specifically targeted a small amount of funding for pre-apprenticeship programs. This was contrary to the ITA's priorities of apprenticeship first.
- The ministry and the ITA have fundamentally different funding and accountability arrangements with the province's public colleges. This requires colleges to have different systems in place to satisfy the two entities. It would be easier for the colleges if the ministry and the ITA agreed on a common funding and accountability agreement.
- Given that the ITA provides most of the operating funding and the ministry provides the capital funding, we expected them to be working together to determine the capital needs for trades training. Instead, we found that the ministry's capital funding decisions were not based on any direct input from the ITA. This puts the ministry's capital funding decisions at risk of being inconsistent with the ITA's future operating funding decisions.

*We recommend that the Ministry of Advanced Education and Labour Market Development ensures that its funding allocations to public colleges for the purposes of supporting trades training are coordinated with the Industry Training Authority.*







# Performance reporting needs to be accurate, transparent, and supported by effective records management

As a public Crown corporation, the ITA is required to annually issue a service plan for the coming three years and an annual report detailing its performance against this plan. These documents are expected to provide information that the public and the Legislative Assembly need to understand how well the ITA is performing. For such reporting to be meaningful, it must be both relevant and accurate.

For the purposes of this audit, we assessed the accuracy of a selection of the performance measures included in the ITA's 2006/07 annual report. We chose six of the twelve performance measures included in the report. We selected ones we believed the public would find relevant:

1. Registered participants in programs leading to ITA credentials
2. Youth apprenticeship (registered participants in the youth programs)
3. Registered sponsors with active apprentices on staff
4. Number of provincial and intra-provincial credentials awarded
5. Completion rate
6. Customer satisfaction index survey

We concluded that five of the six measures were reported accurately.

One measure—the number of youth apprentices—was reported inaccurately. For the 2006/07 year we examined, the ITA defined a youth apprentice as being someone age 20 or under at March 31, 2007. When it compiled the results, it did not apply its own age cut-off rules. As a result, the number of active youth apprentices was overstated by 7%. Nevertheless, even the correct, reduced number would have resulted in the ITA achieving its performance target.

The ITA also needs to improve disclosure of its performance measure definitions and calculations. One of the BC Reporting Principles (the principles that the ITA is directed to follow in its annual reporting) states that organizations are expected to disclose key reporting judgements. This includes changes in the way performance is measured compared to previous years. Such disclosure helps the reader put the performance information into the right context and gives them greater confidence in its veracity.

## Performance reporting needs to be accurate, transparent, and supported by effective records management

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During our audit, many of the ITA's stakeholders told us they did not trust the ITA's performance reporting. Part of the reason for this attitude, we believe, is that the ITA has not been as transparent as it could be in explaining its changes in definitions and policies. For example, in its 2006/07 annual report, the ITA did not explain a revision in policy for its performance measure (number of registered participants), even though that revision greatly affected its reported results. Effective January 1, 2007, the ITA changed from having a "fixed apprenticeship expiry date" to a "minimum work-based hours" criteria for determining active participants. The number of active participants would have been 11% fewer had the policy not been changed, and the ITA's performance target would not have been met.

*We recommend that the Industry Training Authority:*

- *improve the internal controls it applies to the calculation of its performance measures; and*
- *clearly and explicitly disclose its performance reporting definitions, sources and calculation methodologies.*

As well, we found problems with the ITA's records management. The ITA was unable to retrieve physical copies of 12% of the sample records we required for our assessment, and 11% of the employers of record were not current. Poor records management is a concern because it can: make it difficult to verify the accuracy of the information the ITA uses to run its operations; affect customer service (e.g., the ITA may contact the wrong employer or be unable to find the information it needs to respond to client questions); and lead to inefficiencies.

*We recommend that the Industry Training Authority improve its records management to ensure it can easily access key participant information when needed.*

# Appendices





## Purpose and expectations

The purpose of our audit was to examine how well the trades training system is being led and managed by government and the ITA.

Many risks in the system need to be carefully managed to ensure it operates effectively, but we focused our audit on four key areas:

### *Key Risk 1: Effective leadership of the trades training system*

Given the number of stakeholders involved and the significance of the changes being introduced, effective leadership is needed to ensure a cohesive trades training system. In looking at how well the system was being led, we expected the government and the ITA to have clearly defined, communicated and coordinated the roles, responsibilities and expectations of the different stakeholders in the system.

### *Key Risk 2: Employer involvement in trades training*

A large part of the ITA's mandate is to ensure that the trades training system is industry-led. This requires encouraging employer involvement in the system. We therefore expected to find that the ITA had developed and implemented plans and strategies to enhance employer involvement.

### *Key Risk 3: Safeguarding quality trades training*

Introducing significant changes to how trades training programs are designed and delivered, while at the same time safeguarding the quality of training being provided, is significantly challenging. We expected to find that the ITA had:

- implemented mechanisms and processes to ensure trades training programs have clear, current, relevant standards that are linked to curriculum and assessment tools; and
- monitored the use of those mechanisms and processes to ensure compliance with standards.

## Appendix A: About our audit

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### *Key Risk 4: Effective allocation of funding for in-school trades training*

In-school training is an important part of trades training. Recognizing its importance, in February 2007, the provincial government committed to increasing the number of apprenticeship training spaces by 7,000 over three years and committed an additional \$15 million in funding for this purpose. Effective allocation of funding needs to be well managed to help meet British Columbia's demand for skilled labour.

We therefore expected the ITA to: have developed and implemented plans and strategies to effectively address training demands; have identified funding needs and allocated them to meet planned objectives; and be reporting publicly on its performance in enhancing trades training.

### Audit scope

For this audit, we examined activities and relationships among the following key trades training system participants:

- Industry Training Authority
- Ministry of Economic Development (now called the Ministry of Technology, Trade and Economic Development)
- Ministry of Advanced Education (now called the Ministry of Advanced Education and Labour Market Development)
- Ministry of Education
- Industry Training Organizations
- Public and private post-secondary training institutions
- School districts and schools

We only audited the ITA and the ministries. We did not audit the other organizations we visited as part of our examination. Instead, we used the data and information they provided as evidence to assess government and the ITA's leadership and management of trades training.

The period we examined was between 2005 and 2008, although we also provide contextual information from before 2005. We carried out our work between July 2007 and June 2008. We completed our analysis of evidence by July 2008. Following completion of report drafting and quality assurance procedures, we released a draft report to the ITA and the ministries in October 2008,

## Appendix A: About our audit

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in part to ensure no significant changes had occurred since the end of our evidence gathering.

Our examination was performed in accordance with assurance standards established by the Canadian Institute of Chartered Accountants.

We did not seek input from trade students or employer worksites for this audit. We did, however, meet with some labour and employer groups at their request.

We did not audit the ITA's youth programs. Our early assessment determined that the operation of these programs varied to such an extent across the province that we could not conclude on how well they are being managed. Doing so would have required a much greater level of audit resource.







## Appendix B: Apprenticeship Trades Programs

1. Aggregate Plan Operator
2. Agricultural Equipment Technician  
"Red Seal"
3. Aircraft Maintenance Technician
4. Aircraft Structural Technician
5. Appliance Service Technician "Red Seal"
6. Arboriculturist (Urban Forestry)
7. Architectural Sheet Metal Worker
8. Asphalt Paving/Laydown
9. Asphalt Plant Operator
10. Automatic Transmission Service Technician
11. Automotive Glass Technician
12. Automotive Machinist
13. Automotive Painter (Automotive Refinishing Technician) "Red Seal"
14. Automotive Radiator Manufacturer and Repairer
15. Automotive Refinishing Prep Technician
16. Automotive Service Technician "Red Seal"
17. Automotive Upholsterer
18. Automotive Wheel Alignment and Brake Service Technician
19. Baker "Red Seal"
20. Barber
21. Boilermaker (Construction Boilermaker) "Red Seal"
22. Boom Truck Operator Class A Trade
23. Boom Truck Operator Class B Trade
24. Bricklayer (Mason) "Red Seal"
25. Building Envelop Technician
26. Cabinet Maker (Joiner) "Red Seal"
27. Cable Splicer
28. Carpenter "Red Seal"
29. Communication Technician
30. Community Antenna Television Technician
31. Concrete Finisher (Cement Mason) "Red Seal"
32. Concrete Plant Operator
33. Construction Formwork Technician
34. Cook "Red Seal"
35. Dairy Production Technician
36. Diesel Engine Mechanic
37. Diesel Fuel Injection Mechanic
38. Domestic/Commercial Gasfitter
39. Domestic/Residential Certified Geothermal Technician
40. Domestic/Residential Certified Heating Technician
41. Drywall Finisher
42. Electric Motor Systems Technician (Winder Electrician) "Red Seal"
43. Electrician, Construction "Red Seal"
44. Electrician, Industrial "Red Seal"
45. Electro-Plater
46. Electronics Communications Technician
47. Electronics Technician
48. Electronics Technician (Consumer Products) "Red Seal"
49. Elevator Mechanic
50. Embalmer and Funeral Director
51. Floor Covering Installer "Red Seal"
52. Florist
53. Forklift Mechanic
54. Funeral Director
55. Glazier "Red Seal"
56. Graphic Arts — Bookbinder 1
57. Graphic Arts — Litho Pressperson
58. Hairstylist (Cosmetologist)
59. Hardwood Floorlayer
60. Heavy Duty Equipment Technician (Mechanic) "Red Seal"
61. Heavy Equipment Operator
62. Hydraulic Crane Operator
63. Hydraulic Service Mechanic
64. Inboard/Outboard Mechanic
65. Industrial Engines and Equipment Partsperson
66. Industrial Instrument Mechanic "Red Seal"

## Appendix B: Apprenticeship Trades Programs

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| 67. Industrial Mechanic (Millwright)<br>“Red Seal”       | 97. Planermill Maintenance Technician 2                  |
| 68. Industrial Warehouseperson                           | 98. Plasterer  |
| 69. Insulator (Heat and Frost) “Red Seal”                | 99. Plumber “Red Seal”                                   |
| 70. Ironworker “Red Seal”                                | 100. Power Line Technician “Red Seal”                    |
| 71. Landscape Horticulturist                             | 101. Production Horticulturist                           |
| 72. Lather “Red Seal”                                    | 102. Railway Car Technician                              |
| 73. Locksmith  | 103. Recreation Vehicle Service Technician<br>“Red Seal” |
| 74. Log Builder  | 104. Refrigeration Mechanic “Red Seal”                   |
| 75. Lumber Manufacturing<br>Industry — Benchperson       | 105. Reinforcing Steel Installer                         |
| 76. Lumber Manufacturing<br>Industry — Circular Sawfiler | 106. Residential Building Maintenance Worker             |
| 77. Lumber Manufacturing — Sawfitter                     | 107. Residential Construction Framing<br>Technician      |
| 78. Machinist “Red Seal”                                 | 108. Residential Steep Roofer                            |
| 79. Marine Engine Mechanic                               | 109. Rig Technician 1                                    |
| 80. Marine Mechanical Technician                         | 110. Rig Technician 2                                    |
| 81. Marine Repair Technician                             | 111. Rig Technician 3 “Red Seal”                         |
| 82. Meatcutter   | 112. Roofer “Red Seal”                                   |
| 83. Metal Fabricator (Fitter) “Red Seal”                 | 113. Security Alarm Installer                            |
| 84. Meter Technician                                     | 114. Sheet Metal Worker “Red Seal”                       |
| 85. Mobile Crane Operator — Construction<br>“Red Seal”   | 115. Sprinkler System Installer “Red Seal”               |
| 86. Motion Picture and Theatre — Grip                    | 116. Steamfitter/Pipefitter “Red Seal”                   |
| 87. Motion Picture and Theatre — Set Dresser             | 117. Telecontrol Technologist                            |
| 88. Motor Vehicle Body Repairer “Red Seal”               | 118. Tilesetter “Red Seal”                               |
| 89. Motorcycle Mechanic “Red Seal”                       | 119. Tire Repairer                                       |
| 90. Moulder and Coremaker                                | 120. Tool and Die Maker “Red Seal”                       |
| 91. Oil Burner Mechanic (Residential)<br>“Red Seal”      | 121. Tower Crane Operator                                |
| 92. Outdoor Power Equipment Technician                   | 122. Transport Refrigeration Mechanic                    |
| 93. Painter and Decorator “Red Seal”                     | 123. Transport Trailer Technician “Red Seal”             |
| 94. Partsperson (Automotive Partsperson)<br>“Red Seal”   | 124. Truck and Transport Mechanic “Red Seal”             |
| 95. Piledriver and Bridgeworker                          | 125. Utility Arborist                                    |
| 96. Planermill Maintenance Technician 1                  | 126. Water Well Driller                                  |
|  | 127. Welder — Level ‘A’ and Level<br>‘B’ — “Red Seal”    |
|  | 128. Welder — Level ‘C’                                  |

