

# **Skills Upgrading Initiatives in Canada: Regional Case Studies**

Preliminary Report

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January 2005

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**SKILLS UPGRADING INITIATIVES IN CANADA:**

**REGIONAL CASE STUDIES**

**Preliminary Report**

*by*

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Preliminary report prepared for the Organisation for Economic Co-operation and Development (OECD) as part of the Study on Skills Upgrading for the Low-qualified led by the LEED Directing Committee of the OECD.

This report is subject to change. A revised version of this report will be included in the forthcoming OECD publication *Rising Expectations: New Perspectives for the Low-Skilled*, Paris: Organisation for Economic Co-operation and Development scheduled for release in 2005.

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## Contents

<b>Foreword.....</b>	<b>iv</b>
<b>Introduction.....</b>	<b>1</b>
<b>Structure of the Chapter .....</b>	<b>1</b>
<b>Research Methodology .....</b>	<b>2</b>
<b>1. The National Labour Market .....</b>	<b>2</b>
1.1 Macroeconomic Indicators.....	2
1.2 Employment Indicators.....	2
1.3 Education Indicators .....	4
1.4 Adult Education and Training in Canada.....	5
<b>2. Adult Education and Training Policy in Canada.....</b>	<b>6</b>
2.1 Federal Training Policy.....	7
2.2 Provincial and Territorial Policy Responses.....	9
<b>3. The Regional Labour Markets .....</b>	<b>12</b>
<b>4. The Regional Case Studies .....</b>	<b>14</b>
4.1 Northwest Territories Case Studies .....	15
4.2 Case Studies in the Province of Alberta .....	24
4.3 Other Case Studies in Skills Upgrading in Canada .....	33
<b>5. Lessons Learned from Canadian Study.....</b>	<b>36</b>
<b>6. Conclusions.....</b>	<b>41</b>
<b>Appendix A – Maps of Northwest Territories.....</b>	<b>43</b>
<b>Appendix B – Map of Alberta.....</b>	<b>44</b>
<b>Appendix C – Web site Information on Organizations and Government Agencies.....</b>	<b>45</b>
<b>Chapter References.....</b>	<b>46</b>

## Foreword

Helping people improve their prospects in the labour market must go beyond helping the unemployed find jobs. It also needs to include helping less-skilled employed workers to enhance their skill levels. In 2002, the Organisation for Economic Co-operation and Development (OECD) recognized that there has been insufficient attention to measures designed to upgrade the skills of economically disadvantaged workers. The OECD also noted that innovative programs were emerging at the community level in a number of member countries, but that the characteristics and effects of these local initiatives were not well understood.

In response to this gap, the OECD launched a project to examine local skills upgrading initiatives in five member countries--Canada, the US, the UK, Belgium, and Denmark. The objective was to develop policy recommendations on the effective design and implementation of skills upgrading programs.

Government departments in each of the participating countries identified suitable pilot programs or local initiatives for inclusion in the study, and OECD and government officials participated in initial site visits. Independent researchers were engaged to conduct in-depth interviews with local stakeholders, to analyse the factors promoting or inhibiting success, and to report on their findings. In Canada, the cases selected for study (by Human Resources and Skills Development Canada) involved diamond mines in the Northwest Territories, and, in Alberta, oil-sands companies and the trucking sector.

This preliminary report on the Canadian case studies was written by Richard Brisbois and Ron Saunders of CPRN's Work Network. A revised version will appear as a chapter (along with the other country studies and some cross-country comparative analysis) in a forthcoming OECD publication, *Rising Expectations: New Perspectives for the Low-Skilled*, to be published late in 2005.

The case studies presented in this preliminary report indicate the opportunities and challenges associated with efforts to provide skills development opportunities to less-skilled workers. Brisbois and Saunders find that collaboration between governments, employers and educational institutions has been a major key to success. Each of the partners has made its own unique contribution: Government has provided appropriate regulation and has invested in the development of a framework for improving 'essential skills'. Educational institutions contributed assessment tools and training customized to fit the needs of employers and the skill gaps of employees; appropriate, sensitive learning environments; learning materials directly related to employees' jobs; and skilled adult educators. The employers made significant private investments, including: paid time for training; marketing of upgrading programs to both senior management and employees; and community capacity building.

These case studies provide a glimmer of hope for employed workers seeking to upgrade their skills and for people caught in the poverty trap of low-skill, low-pay and insecure working conditions. And, together with the reports from other countries and further research by the OECD Secretariat, will help to shape corporate and government programs to improve the labour market prospects of less-skilled workers.

Judith Maxwell  
January 2005

## Introduction

A growing body of evidence supports the view that human capital development is a key factor in driving economic growth. The OECD (2002) has noted that, despite a growing recognition of the importance of human capital development to meeting social and economic objectives, low-skilled workers often find that opportunities to enhance their skills and improve the quality of their jobs are scarce. In many OECD countries, including Canada, there is a high incidence of poverty among working households. Government training programs tend to target the unemployed, especially the long-term unemployed, rather than the low-skilled, low-waged employed. Moreover, employers tend to provide more and better skills development programs for workers who are already highly-skilled.

OECD (2002) research also suggests that skills upgrading is often part of an “education” agenda related to the notion of lifelong learning, rather than simply an employment policy agenda. However, the demands and business needs of employers are often influential in the development of skills-upgrading initiatives.

Some initiatives have been undertaken in Canada at the national, provincial/territorial, and local levels to promote upgrading of the skills of less-skilled workers. The case studies presented in this chapter may shed some light on the opportunities and challenges associated with efforts to provide skills development opportunities to such workers.

The chapter focuses on case studies in two neighbouring regions of Canada; the northern portion of the Province of Alberta and the Northwest Territories. The cases presented include a diversity of initiatives that aim to reinforce the need and importance of basic, essential skills in the workplace. The chapter largely focuses on cases involving employers who, in collaboration with community colleges, have developed tools, very much based on their local labour market needs, to upgrade the skills of their workforce. These tools were developed, in part, through initiatives of the federal government.

## Structure of the Chapter<sup>1</sup>

This chapter begins with a general overview of the Canadian labour market highlighting a number of key economic indicators (Section 1). The second section provides a discussion of policy initiatives in skills development of the federal government as well as the Government of Alberta and the Government of the Northwest Territories. A brief overview of the labour markets of the two main case study regions is presented in Section 3. Section 4 provides detailed descriptions of the skills upgrading initiatives in the case studies selected for this report and provides a summary assessment of these initiatives. Section 5 seeks to present a discussion of common themes and lessons learned from the Canadian study. Finally, we provide overall conclusions to the study in Section 6.

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<sup>1</sup> Sections 1 through 3 of this chapter (The National Labour Market, Adult Education and Training Policy in Canada, and The Regional Labour Markets) utilize the text of the background report authored by Erik de Vries of Human Resources and Skills Development Canada (HRSDC) for the OECD Canadian Study. Some minor edits and modifications were made to the text drawn from the background report and new information was also added in some areas. We thank Mr. de Vries for permission to utilize the text of the background report in this chapter. We also acknowledge Caithlin McArton and Awo Nuuh of HRSDC for their assistance in developing the background report with Mr. de Vries.

## **Research Methodology**

Information for this study was gathered from the following sources: a background report (unpublished) outlining the national policy framework prepared by Erik de Vries of Human Resources and Skills Development Canada (HRSDC) for the OECD; presentations and discussions that occurred during the initial (May, 2004) site visit to the case study regions by the OECD/LEED study group; in-depth follow-up interviews by the Canadian research team with key stakeholders involved in the case studies (June, 2004); and examination of published materials and website content from the various stakeholders.

### **1. The National Labour Market**

In this section we highlight key labour market indicators of the Canadian economy and present information on adult training and education in Canada.

#### **1.1 Macroeconomic indicators**

##### *GDP Indicators*

Canada's gross domestic product increased over the last decade, rising an average of approximately 4 per cent in real terms between 1994 and 2002, when GDP reached \$1.15 trillion (current dollars) (Statistics Canada 2004a). From 1980 to the present, GDP per capita has risen gradually, although not without interruption, increasing from \$23,650 to \$34,210 (in constant 1997 dollars). GDP per capita varies substantially between provinces, ranging from \$40,156 per capita in Alberta in 2003 to \$23,929 in PEI, with Quebec's GDP per capita at \$30,483 and Ontario's at \$37,049 (Statistics Canada, 2004b).

In 2003, there were sharp declines for certain industries within the manufacturing sector. Gains in the chemical industry and the manufacturing of information technology were offset by losses for food and wood product manufacturers, with the result that net output change remained flat. This impact on the manufacturing sector was partly due to the steep appreciation of the Canadian dollar, which made international exports less profitable (Statistics Canada, 2004c).

#### **1.2 Employment Indicators**

##### *Unemployment rates*

From 1992 to 2000, Canadian unemployment declined steadily from a high of 11.2 per cent to 6.8 per cent in 2000; with the economic slowdown beginning in 2000 came a modest increase to 7.7 per cent in 2002 (Statistics Canada, 2004d). This general pattern was repeated in most provinces, but historic patterns prevailed, with higher unemployment east of the Ontario-Quebec border.

Unemployment is higher for marginalized groups in Canada, especially youth, Aboriginal<sup>2</sup> people, persons with disabilities and recent immigrants. At the end of 2003, the unemployment

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<sup>2</sup> Aboriginal people (Aboriginals) are the descendants of the original inhabitants of North America. The Canadian Constitution recognizes three groups of Aboriginal people – Indians, Métis people and Inuit. These are three separate peoples with unique heritages, languages, cultural practices and spiritual beliefs. This definition is taken

rate for youth (15-24 years) was 14 per cent. Unemployment among Aboriginals was 19.1 per cent in 2001. Unemployment among Canadians with disabilities stood at 10.7 per cent in 2001, although fewer than half of working age individuals with disabilities were in the labour force at all (HRDC and Statistics Canada, 2004). For those who immigrated to Canada between 1996 and 2001, the 2001 unemployment rate was 13.8 per cent, although the rate for those who immigrated before 1991 is comparable to that of other Canadians (Statistics Canada, 2001).

Unemployment is inversely correlated with education; in 2002, individuals aged 25 and older with less than a high school education had a 10.3 per cent unemployment rate, compared to high school graduates at 6.5 per cent, non-university postsecondary graduates at 5.7 per cent, university graduates at 5.1 per cent, and those with postgraduate education at 4.2 per cent (Statistics Canada, 2004e).

### *Employment by Sector*

Nearly three quarters (74.4 per cent) of Canadian employees worked in the service sector in 2002, a slight increase from the 73.3 per cent level in 1992. Over the same period, growth in employment was led by management and administrative support services (increasing from 2.6 per cent in 1992 to 3.8 per cent of employees in 2002), professional and scientific services (4.6 per cent in 1992 and 6.4 per cent in 2002), and information, culture and recreation (3.8 per cent and 4.6 per cent). Employment declines appeared principally in goods-producing sectors, led by agriculture (declining from 3.5 per cent to 2.1 per cent of employees between 1992 and 2002), and forestry, fishing, mining, oil and gas (from 2.2 per cent to 1.8 per cent). A notable decline in the service sector was in public administration (from 6.8 per cent to 5 per cent) (Statistics Canada, 2004f).

Employment by sector varies widely between regions. The manufacturing-intensive regions, principally Ontario and Quebec, employ more individuals in the manufacturing sector (18.5 per cent in Ontario, 18.2 per cent in Quebec) than the Canadian average (15.5 per cent) in 2002 (Statistics Canada, 2004f), and suffered during 2003 owing largely to their dependence to the US economy as an export market. By contrast, the resource-rich regions of Western Canada, particularly Alberta, have outperformed the rest of Canada, spurring spinoff employment in construction and service industries during recent years. While employment in the oil and gas sector is higher in Alberta than the Canadian average, any future employment gains are expected to be in other sectors.

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from the Department of Indian and Northern Affairs document: Treaties with Aboriginal People in Canada found at – [www.ainc-inac.gc.ca/pr/info/is30\\_e.pdf](http://www.ainc-inac.gc.ca/pr/info/is30_e.pdf).

### 1.3 Education Indicators<sup>3</sup>

#### *Highest level of schooling*

Education levels have been steadily increasing in Canada during recent decades. Between 1991 and 2001, the proportion of Canadians aged 25 to 64 with less than a high school education declined from 31 per cent to 19 per cent. By contrast, the proportion of Canadians in this age group with postsecondary credentials surpassed the 50 per cent level for the first time in 2001; 23 per cent had a university degree (up from 17 per cent in 1991), 18 per cent had a college diploma (up from 14 per cent), and 13 per cent had a trade certificate (unchanged) (Statistics Canada and CMEC, 2003, p. 381).

#### *Secondary completion rates*

The Canadian rate of high school completion in 2000 was 78 per cent, up slightly from the 1995 average of 76 per cent. In 1999, 12 per cent of 20-year-olds had dropped out of high school, a decline from the 1991 level of 18 per cent. The highest completion rates were recorded in the Eastern provinces, with the Western provinces not far behind. Although significant improvement was recorded over this five year period, Yukon (59%), the Northwest Territories (39%) and Nunavut (35%) are still far below the Canadian average. (Statistics Canada and CMEC, 2003, pp. 100-101).

#### *Post-Secondary Graduation Rates<sup>4</sup>*

College graduates accounted for 28 per cent of their age cohort in 1998, up from 20 per cent in 1989.

In 1998-1999, 148,000 people completed trade and vocational programs, with over half graduating from pre-employment and pre-apprenticeship programs or registered apprenticeship programs. In 2000, there were 18,000 graduates from registered apprenticeship training programs, marking a decrease of 7 per cent from 1991 levels. The proportion of women completing apprenticeship programs doubled over the 1990s, from 6 per cent to 12 per cent of all graduates of such programs (Statistics Canada and CMEC, 2003, pp. 135-140).

The percentage of their age cohort accounted for by university graduates rose slightly during the 1990s, from 28 per cent in 1991 to a 1994 level of 30 per cent, where it remained until 1998.

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<sup>3</sup> In the following section, postsecondary education is divided into three distinct categories. Vocational or trades training is offered at community and private colleges, and includes vocational and pre-vocational training, apprenticeship programs, and skills upgrading programs. College education is acquired through community colleges, CEGEPs (Collège d'Enseignement Général et Professionnel) in Quebec, technical institutes, regional and hospital nursing schools, and specialized training institutions. In Canada, colleges offer a wide variety of vocational courses for new entrants, academic courses for students preparing for universities (especially in provinces like Quebec, Alberta, and British Columbia), shorter vocational courses for upgrade training, courses for employees of specific firms, adult education, basic skills education, and sometimes short-term labour market programs. University education includes university degrees at undergraduate and graduate levels, and postgraduate certificates.

<sup>4</sup> Graduation rates are calculated by dividing the number of graduates in a given type of program by the population at typical graduation age for that program; the ages used for this calculation in Canada are: secondary – 18 (except Quebec, where it is 17); college – 21; undergraduate university – 22; master's – 24; doctorate, 27 (Statistics Canada and CMEC, 2003, pp. 200-201).

Graduation rates for graduate level study (master's and doctoral degrees) increased during the 1990s, to 5 per cent for master's degrees in 1998 (up from 4 per cent in 1991) and to 0.6 per cent for earned doctorates (up from 0.4 per cent) (Statistics Canada and CMEC, 2003, p. 374).

Education is considerably lower for Aboriginal Canadians at all levels than for the Canadian population as a whole, although there has been some improvement. Between 1996 and 2001, the share of working age (25-64) Aboriginals with only a high school diploma rose from 21 per cent to 23 per cent, while the share with post-secondary qualifications (trades, college or university) increased from 33 per cent in 1996 to 39 per cent in 2001. The proportions of working-age Aboriginal Canadians with trades certificates and community college are similar to those of the Canadian population, at 16 per cent with trades certification (compared to 13 per cent of the Canadian population) and 15 per cent with college qualifications (compared to 18 per cent). University education levels diverge, however, at 8 per cent among Aboriginals, compared to 28 per cent of all working-age Canadians (Statistics Canada and CMEC, 2003, p. 146). Initiatives geared specifically at upgrading skills of Aboriginal persons are discussed later in the case studies.

#### **1.4 Adult Education and Training<sup>5</sup> in Canada**

In 1997, approximately 28 per cent of Canadians participated in adult education and training, with similar rates for women (27%) and men (29%). The majority of participants, approximately 75 per cent, took programs for job-related purposes. Participation rates are highest in British Columbia (32 per cent), Alberta and Ontario (both at 31 per cent), with Manitoba (28 per cent) and Saskatchewan not far behind. Quebec (21 per cent) and Newfoundland (19 per cent) trail other provinces, just behind Prince Edward Island and New Brunswick.

An individual's level of education is a strong predictor of training participation in Canada. Only 11 per cent of those with less than a high school diploma participated in some adult education or training in 1997. This compares with a 48 percent participation rate for university graduates, a 39 per cent participation rate for college graduates, and a 22 per cent participation rate for high school graduates (HRDC and Statistics Canada 2001, p. 71).

Age and training participation are inversely correlated. Training participation rates are fairly stable for younger participants in the 17-44 age range, with a subsequent gradual decline in participation rate by age. Beginning at age 45, there is a sharp decrease in training rate by age. For 17-24 year olds, the participation rate is just under 40 per cent, declining to 38 per cent for those aged 25-34 years, 35 per cent for 35-44 year olds, 30 per cent for 45-54 year olds, dropping to 15 per cent for individuals aged 55-64, and just 5 per cent for those aged 65 years and older. A similar inverse correlation appears between age and study duration.

Adult training participation is also closely linked to employment status. In 1997, 29 per cent of employed people participated in job-related training, compared to 20 per cent of the unemployed. Participation is higher for full-time (27 per cent) than for part-time (20 per cent)

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<sup>5</sup> Adult Education is adapted to the Canadian context using the definition employed by UNESCO. This definition includes all formal education for adults, which supplements, replaces or enhances their initial cycle of education. It includes persons 17 years and over but excludes those students involved in their initial cycle of formal education. It thus excludes all full-time students enrolled in a post-secondary program between the ages of 17 to 24, as well as students aged 17 to 19 enrolled in a full-time non-employer sponsored elementary or secondary program. (HRDC and Statistics Canada 2001, pp. 7-8). Unfortunately neither of the two surveys from which the information in this section is drawn, the Adult Education and Training Survey (AETS) and the Workplace and Employee Survey (WES), covers the three Canadian territories.

employees. There are no major differences by sex, with the single exception that women rely more heavily on self-financing (as opposed to employer financing) for adult education and training than men, a phenomenon explained by their lower labour market participation rate and higher rate of part-time work. (HRDC and Statistics Canada 2001, pp. 17-21).

The primary barriers to participation in adult education and training in Canada, as reported by individuals, are being too busy at work (reported by 62 per cent), inconvenience of time or location of available training (41 per cent), cost (37 per cent), and non-child family responsibilities (14 per cent). For women, non-child family responsibilities (cited by 26 per cent) and child care (17 per cent) were of somewhat greater importance than for men (21 per cent and 11 per cent, respectively). (HRDC and Statistics Canada 2001, pp. 29-31).

### *Suppliers of Training and Training Provision by Employers*

Public education institutions offer three-quarters of all adult education and training programs and one-quarter of all training courses.<sup>6</sup> Employers themselves supply close to one third of all job-related courses (including apprenticeship programs) while commercial schools and private training providers offer 20 per cent of courses. In addition, equipment producers and suppliers offer 10 per cent of job-related courses.

The principal sources of financial support for adult education and training are employers and self-financing. Employers contribute to the cost of 63 per cent of training courses, while individuals finance their own studies in 29 per cent of cases. For adults requiring basic education such as elementary or high school education, support is primarily through self-financing (42 per cent of instances), government (37 per cent), or is offered at no cost apparent to the student (21 per cent). Employers rarely contribute to this kind of education, offering funding in only 4 per cent of cases (HRDC and Statistics Canada 2001, 24-28; pp. 79-80).

Employers are 2.5 times more likely to sponsor training for white collar workers (those in knowledge intense occupations, professional and managerial positions) than blue collar workers (skilled and unskilled trades), with clerical staff receiving slightly more support than blue collar workers.

Firm size is a strong determinant of provision of employer-sponsored training; the likelihood of receiving employer-sponsored training was twice as high, at 34 per cent, for employees of medium (100 to 499 employees) and large (over 500 employees) firms than that for employees in small firms (less than 100 employees), at 16 per cent. This difference is largely attributable to the relatively high impact of fixed training costs for small firms.

## **2. Adult Education and Training Policy in Canada**

Investment in adult education and skills attainment has enjoyed a high profile in recent years in Canada. The economic advantages of a skilled labour force and a corresponding policy of human capital development have been recognized and increasingly well-articulated among international scholars and non-governmental organizations, as well as by Canadian policy-makers. At the heart of this policy is the observation that Canada's competitiveness will rely

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<sup>6</sup> In the section that follows, a course is understood as any formal learning episode to develop knowledge or skills, while a program is a selection of courses leading to a degree, diploma or certificate.

increasingly on its ability to provide citizens with the knowledge and skills they require throughout their lives.

## ***2.1 Federal Training Policy***

Canadian national policy regarding adult and worker skills and training has historically been permeated by the tension between the federal and provincial/territorial levels of government. On the one hand, the constitutionally-established jurisdiction of the Canadian provinces over education has been interpreted to include adult training. On the other hand, the federal government has responsibility for unemployment insurance (now called “employment insurance” or EI) and funds adult skills training through that program. The federal government used to be heavily involved in the delivery of training programs (and not just for EI eligible clients). However, in recent years, the role of the federal government in sponsoring job training has changed substantially. The Canadian labour market training system was overhauled in 1996 when the federal government introduced a new Employment Insurance (EI) Act and withdrew from direct training of Employment Insurance (EI) clients. The EI Act also authorized the federal government to enter into Labour Market Development Agreements (LMDAs) with provinces and territories which led to the negotiation of full-transfer LMDAs with five provinces and two territories, and co-managed LMDAs with four provinces and one territory<sup>7</sup>. There is no LMDA with the province of Ontario. The 1996 commitment to devolve training to provincial and territorial authorities notwithstanding, the federal government explicitly retained jurisdiction for adult training to members of targeted groups, including Aboriginal peoples.

### *The Federal Government’s Skills Agenda*

Results of the Canadian portion of the International Adult Literacy Survey (IALS) in 1994 raised concerns about the levels of literacy and numeracy skills (prose literacy, document use, and quantitative literacy) among adult Canadians. While Canada’s performance on these measures was comparable to or better than many of its competitors, the revelation that 42 per cent of Canadian adults had low or very low literacy skills – resulting in difficulties performing many everyday tasks required in the home, community and workplace – created considerable momentum in support of measures to improve those, and other, skills. Evidence of relatively low levels of workplace-based training in Canada provided further cause for concern.

Following announcements in the 2000 and 2001 Speeches from the Throne, the Government of Canada articulated its commitment to a human capital development policy when it released a report entitled *Knowledge Matters: Skills and Learning for Canadians* laying out the framework within which the government’s Skills and Learning Agenda was to be carried out.

There are three key aspects to this agenda. First, new sources of skilled labour will need to come from among Canadians whose capacity to contribute to Canada’s economic well-being has not been fully realized; special initiatives for Aboriginal Canadians, youth, and persons with disabilities constitute part of this response. Second, the skills of immigrants to Canada<sup>8</sup> are often

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<sup>7</sup> With the full-transfer model, provinces and territories assumed the responsibility for the design and delivery of active labour market programs funded through the EI account. Under the co-managed model, provincial/territorial governments share in the design and management of active measures, while the federal government continues to be responsible for their delivery.

<sup>8</sup> The composition of immigrants to Canada by source country has changed substantially over the past 20 years. Until 1981, most immigrants to Canada were of European origin. However, since 1991, the majority of immigrants are now from Asia and the transferability of foreign credentials continues to be a hurdle facing many new immigrants.

under-utilized or not utilized at all; the federal government is therefore now working with professional regulators and educational system representatives to develop standards for the recognition of foreign credentials, beginning with occupations in high demand in the Canadian labour market. Third, it is of paramount importance that the opportunity for Canadians to pursue higher education be universal, irrespective of family wealth; to this end, the Government of Canada recently announced measures to assist and encourage families to save for their children's postsecondary education, as well as increasing funding levels available to postsecondary students in need of student loans.

### *Skills Development Initiatives*

The federal response to the workplace training gap has been more muted than in other policy areas, owing largely to its 1996 commitment to withdraw from labour market training activity outside of the confines permitted under the new Employment Insurance Act (discussed above).

Although federal funding only supports labour market training for EI clients and for other target groups (youth, older workers, persons with disabilities), it does provide indirect support for subsequent training by assisting partners to conduct labour market research, develop and publish career information, and develop curriculum. For example, the Sectoral Partnerships Initiative provides both core and project funding for sector councils<sup>9</sup>, each representing an economic sector, that bring together labour and business representatives to address human resources development issues. Research and innovation funds support government and partner projects that increase knowledge and tools in support of improved labour market integration.

The Essential Skills and Workplace Literacy (ESWL) initiative was launched on April 1, 2003. Its goal is to enhance the skill levels of Canadians who are entering - or are already in - the workforce. The Initiative does this by increasing awareness and understanding of Essential Skills, supporting the development of tools and applications, building on existing research, and working with other Government of Canada programs. According to the ESWL website, Essential Skills are the skills needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.

The value of two earlier projects that are now components of the ESWL, the Essential Skills Research Project (which resulted in the identification of occupational profiles or essential skills profiles) and the Test of Workplace Essential Skills (TOWES) are apparent in the case studies presented later in this chapter. Details on these projects are presented below.

### *Essential Skills Research Project*

The first of these is the Essential Skills Research Project (ESRP). The goal of the ESRP, initiated in 1994, is to identify the measurable, transferable and teachable skills present in virtually all Canadian occupations listed in the National Occupational Classification (NOC), the authoritative taxonomy of occupations in Canada. The NOC organizes the Canadian world of work into 520 occupational groups according to skill type and skill levels and is the framework for occupational data collection in Canada. Using rigorous, consistent standards (including, where possible, skill levels adopted from existing reliable measures including the International Adult Literacy Survey (IALS)), Essential Skills researchers are profiling each of the 520

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<sup>9</sup> Sector Councils bring together representatives from business, labour, education, and government to understand issues and implement long-term human resource planning and development strategies for their respective sectors. They play an important role in engaging industry to help bridge the gap between its needs and the learning system.

Canadian occupational groups, identifying the level and application of each of nine Essential Skills in profiles published on the HRSDC website. The nine essential skills are: reading text; document use; writing; numeracy; oral communication; thinking skills; working with others; computer use; and continuous learning.

To date, 200 occupational profiles are published and the majority of the remaining profiles are expected to reach completion by 2007. The ESRP has directly generated two principal products now used extensively by industry partners. The occupation-specific essential skills profiles are used by industry and educational partners to set training standards appropriate to particular occupations. The methodology developed to profile Canadian occupations has been adopted and applied to occupations too specific to receive their own profile under the ESRP. For example, both of the diamond mines, Diavik and BHP Billiton, included in this study have developed and used customized essential skills profiles for occupations specific to their industry using ESRP methodology.

### *Test of Workplace Essential Skills*

The second example concerns the development of the Test of Workplace Essential Skills (TOWES; pronounced to rhyme with “cows”), developed with project funding from the National Literacy Secretariat at Human Resources Development Canada (HRDC)<sup>10</sup>. TOWES was developed beginning in 1998 under the joint responsibility of Bow Valley College<sup>11</sup> in Calgary, and SkillPlan (The British Columbia Industry Skills Improvement Council). The resulting product is a test of the three essential skills (reading text, document use and numeracy) which had been measured at the population level in the International Adult Literacy Survey (IALS) in Canada in 1994. TOWES is unmatched by other individual-level tests of literacy and numeracy skills for two reasons: first, it has been validated against IALS (and therefore also with the Essential Skills profiles) and proved to correlate very highly with it; second, because the test materials are authentic workplace materials collected by ESRP researchers and rated for complexity, test candidates are assessed realistically for their capacity to function in actual workplaces. Of the cases being examined in this study, TOWES has been used at Syncrude and Suncor in Ft. McMurray and at BHP Billiton and Diavik in the Northwest Territories to assess or screen workers for training and placement.

## ***2.2 Provincial and Territorial Policy Responses***

A detailed summary of the skills development initiatives undertaken by each of the Canadian provinces and territories would be too extensive to undertake here. Instead, we focus on the two jurisdictions directly relevant to this chapter, namely the Northwest Territories and the Province of Alberta. Details on the labour markets of these two regions are provided in the next section of this chapter.

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<sup>10</sup> Human Resources Development Canada (HRDC) is now split into two departments: Human Resources and Skills Development Canada (HRSDC) and Social Development Canada (SDC) – the Essential Skills project is currently housed in the former.

<sup>11</sup> Bow Valley College is a post-secondary education institution that has been providing adult education since 1965. The College serves 11,000 learners annually in Calgary and other campuses in Alberta with a focus on workforce preparation and workforce development. The College was one of the first institutions in Canada to embrace the concept of Workplace Essential Skills and has been a partner in the development of TOWES (Test of Workplace Essential Skills).

## Northwest Territories (NWT)

The department responsible for all of the major policy initiatives in the domain of adult education, training and skills-upgrading in the Government of the Northwest Territories (GNWT) is the Department of Education, Culture and Employment (ECE). The strategic framework driving the government's education and training policy is captured in the report entitled *People: Our Focus for the Future (2000)*, and further developed in the *NWT Labour Force Development Plan: 2002-2007* (Government of the Northwest Territories, 2002), itself an extension of a 1997 education and training plan. The NWT plan aims to establish and promote effective partnerships and networks between various public, private and non-profit organizations in NWT, which include educational institutions, the private sector, governments, as well as community and non-profit organizations (Government of the Northwest Territories, 2002). The labour force development plan emphasizes challenges such as enhancing the labour force participation of Aboriginal citizens in remote communities, individuals with lower levels of education, disabilities or wellness issues. (Government of the Northwest Territories, 2002).

The NWT plan integrates three mutually reinforcing components with a view to ensuring a holistic approach to education, training, career development and support services.

The first component focuses on basic education and career services ('Building a Foundation'). The *Adult Literacy and Basic Education (ALBE) Directive* was devised to address skills deficiencies stemming in part from the NWT's historically high secondary dropout rate. Programs derived from the Directive are focused on improving access for adults to basic and secondary-level education, but also include community literacy and other basic skills programs, workplace literacy and training programs, and programs for prison inmates. Funding is focused on developing and standardizing curriculum, quality standards, student-centered teaching methods and baseline literacy data. GNWT also administers a 'Building Essential Skills' (BES) program which provides short-term training and education opportunities for individuals eligible for Employment Insurance (EI) skills development benefits that are funded by the federal government. The career services are complementary to the skills training and upgrading component as they provide support services such as counselling and labour market information.

The second component of the NWT labour market development policy ("Skill Enhancement") involves skills enhancement and employment services. This initiative's main objectives are to develop effective skills training and professional certification programs and to develop new occupational standards where they are needed. This component emphasizes a collaborative and multi-sector approach to training activities, and focuses on institutional training, workplace learning and industry training. In NWT, the first type is offered primarily at Aurora College's three campuses and twelve community centres. Workplace-oriented training is delivered through programs such as Training on the Job (TOJ) (which provides wage subsidies to employers that train) and the Apprenticeship Training-on-the-Job Program (ATOJ) (which provides wage subsidies to employers hiring apprentices). Where the client is eligible for EI benefits, federal funding is also used to support these programs. ECE also promotes skill inventories to address sector specific human resource training needs. Some examples of current training programs include the Training Initiatives for the Oil and Gas Industry (which supports students training for certification in occupations specific to that industry) and the Maximizing Northern Employment Strategy (which subsidizes industries in key sectors – including mining – providing workplace training to Aboriginals).

The third component ("Supporting Change") consists of income and personal support programs including a variety of labour market information activities, such as the NorthWin web

site, to match employers and job seekers. GNWT provides direct financial support to individuals ineligible for EI support pursuing skills upgrading through the NWT Income Assistance Program and the Community Skills for Work Program. NWT Student Financial Assistance provides postsecondary students with grants and loans.

## **Province of Alberta**

Alberta's low rate of unemployment and growing petroleum sector have created a regional skills shortage in numerous occupations, including many directly related to oil extraction and refining. While the province has had some success in attracting skilled workers from other parts of Canada, skills shortages remain and are expected to grow in some regions, particularly in the oil rich region around Fort McMurray, commonly referred to as the "oilsands" region. According to government officials, the oilsands development has been slowed down in recent years because of a lack of workers in the construction trades. There is also a concern that the neighbouring province of British Columbia (B.C.) may draw away many construction workers from Alberta to work on projects associated with the 2010 Winter Olympics in B.C. Estimates suggest that as many as 75,000 workers will be needed in B.C. for Olympics related construction projects.

The Government of Alberta's Skills Investment Strategy, unveiled in October 2003, is designed around four core functions: to provide career information and resources to all Albertans ("Career Information"); to support basic skills training for low-skilled individuals not working ("Work Foundations"); to train low-income members of the labour force in job and self-employment skills ("Training for Work"); and support for projects with organizations, employers and communities to help prepare them to address skill shortages ("Workforce Partnerships").

### *Career Information*

The government of Alberta operates career information services (including employment counselling and job posting services) through Alberta Human Resources and Employment (AHRE)'s Labour Market Information Centres. These services are available to all Albertans.

### *Work Foundations*

Under the Work Foundations Program, low-income Albertans, both eligible and ineligible for Employment Insurance (EI) benefits, in need of basic work skills can receive full- and part-time training for academic upgrading for grades 1 through 12, English as a Second Language (ESL), and employability skills training.

### *Training for Work*

With financial support from EI funds under the federal government's Labour Market Development Agreement (LMDA) (described earlier), the government of Alberta provides job skills training for up to 12 months to EI-eligible clients, both in workplace and classroom contexts. All skills training provided under this program must contain the skill sets required by local and regional employers. Individual programs under this initiative serve clients with multiple barriers to employment and individuals in need of occupational upgrading to improve their employment status. This can include worksite-based training opportunities of 6 months or less to teach specific skills for occupations that are in demand and experiencing labour shortages.

### *Workforce Partnerships*

The government of Alberta participates in projects under EI-funded Labour Market Partnerships with organizations, industry sectors and communities. These projects do not cover direct training costs, but support labour market development through such activities as labour market environmental scans, helping organizations develop strategic plans to address skill shortages, and promoting workforce effectiveness.

In support of these programs, Alberta also provides direct income support (estimated at \$281 million for 2004-2005) to training recipients not eligible for EI benefits; moreover, through programs such as the Disability Related Employment Supports (DRES), it supports persons with disabilities to cover additional expenses which constitute barriers to employment during their participation in any program under the Skills Investment Strategy.

Delivery of provincial training programs is conducted through Alberta's public post-secondary institutions, private colleges, contracted training agencies, and AHRE staff.

Alberta Human Resources and Employment (AHRE) is trying to shift some of its spending that is targeted at low-income and unemployed Albertans from adult academic upgrading to skill/occupational training. According to a government official, the thinking is that people can get into the workforce more quickly by taking training in a skill shortage occupation (e.g. trades) rather than a traditional academic program.

It should be noted that the skills upgrading initiatives developed by the Province of Alberta and the Northwest Territories (outlined above) are not the focus of the regional case studies presented in this chapter. These provincial/territorial initiatives are presented as context for the reader. Rather, this chapter focuses on skill upgrading initiatives by employers, training providers, and non-profit organizations to meet particular business needs. As noted by the OECD (2002b), efforts around skills-upgrading are often deployed by actors other than public agencies. We will see examples of such initiatives in the cases presented below.

### **3. The Regional Labour Markets**

The following section describes local labour market information for the regions of Yellowknife, Northwest Territories and Fort McMurray, Alberta, in which the majority of the case studies are based.

#### ***Yellowknife, Northwest Territories***

The Diavik and BHP Billiton diamond mines, as well as the city of Yellowknife are situated in the region of Fort Smith. The Fort Smith Region accounts for the southern half of the Northwest Territories (NWT), with a population of approximately 29,000 and an area of 618,000 square km (see map in Appendix A).

The 2001 labour force participation rate in the NWT was 79 per cent, a rate that has remained stable since 1996. The employment rate in 1999 was 69.5 per cent, increasing to 72.3 per cent in 2001, while the unemployment rate declined from 12.2 per cent to 8.6 per cent over the same period. The majority of the labour force was absorbed in the Business Services, Health/Education

and Other Services Industries, and in the occupations of Sales and Services, and Business, Finance and Administration.<sup>12</sup>

In 1999, of the 5,158 NWT adults who were unemployed: 77 per cent were mainly people of Aboriginal ancestry; most lived in small NWT communities; and most had lower levels of formal education than the general population. Although they are improving, employment rates in the NWT for Aboriginals continue to be lower than non-Aboriginals.

The population of the Fort Smith Region is educated at levels close to those of the Canadian population as a whole. Between 1991 and 1999, the proportion of Fort Smith residents aged 15 and over with less than a secondary school diploma dropped from 37.1 per cent to 28.8 per cent, while the proportion whose highest level of education is a high school diploma increased from 9.7 per cent to 21.5 per cent, exceeding the Canadian average of 14.1 per cent. A growing proportion of the Fort Smith population is university educated, with 15 per cent university-educated, just shy of the 2001 national rate of 15.8 per cent.

Aboriginal adults have lower education levels than non-Aboriginal people of working age. Over one-quarter of NWT Aboriginal adults have less than Grade 9 and 29 per cent have not completed high school. According to a NWT Literacy Council research project, 66 per cent of Aboriginal adults do not have the literacy skills needed for daily living (IALS Level 3) compared with 31 per cent of non-Aboriginal adults.

Given the large share of Aboriginal adults in the NWT who have lower employment rates and education levels, the focus of skills upgrading for this group is very relevant in this region's case studies as we will see later in this chapter.

### ***Fort McMurray, Alberta***<sup>13</sup>

The majority of the case studies examined in Alberta are located in the city of Fort McMurray in the northern part of the province (see map in Appendix B). Alberta has the world's largest oilsands deposits and the region surrounding Fort McMurray has seen rapid growth in recent years.

With an employment rate at 77.5 per cent, and unemployment at 4.9 per cent, the region around Fort McMurray performs slightly better than the totals for Alberta (69.3 per cent and 5.2 per cent, respectively) and significantly outperforms the Canadian figures of 62.5 per cent and 7.4 per cent.

Unemployment rates are higher for Aboriginals in Alberta than for the general population. In 2003, the unemployment rate for Aboriginals living off-reserve in Alberta was 10.7 per cent compared to an overall unemployment rate in Alberta of 5.5 percent (Alberta Human Resources and Employment, 2004).

The labour force of the Fort McMurray area is comparatively young, with a median age of 30.8, compared to a provincial median of 35; 76.7 per cent of the Fort McMurray population is younger than 45, compared to a provincial rate of 67.3 per cent.

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<sup>12</sup> The main sources used for the following data are the Census 2001 from Statistics Canada and the 1999 Labour Force Survey conducted by the Northwest Territories Bureau of Statistics.

<sup>13</sup> Data are for Census Division No. 16, an area of about 97,000 square kilometres in north-eastern Alberta surrounding the city of Fort McMurray.

The level of education of working-age residents of the Fort McMurray area is improving: between 1991 and 1996, the proportion of those aged 15 and older with less than a grade 9 education dropped from 9.6 per cent to 6.2 per cent of the population, while the proportion of those with some kind of postsecondary education increased from a 1991 level of 52 per cent to 55.8 per cent in 1996.<sup>14</sup>

Aboriginals in Alberta have lower postsecondary education levels than the general population. In 2003, only 22.9 per cent of off-reserve Aboriginals in Alberta aged 15 to 64 has completed some kind of postsecondary education (Alberta Human Resources and Employment, 2004).

The education levels of the working-age population of Fort McMurray are compressed relative to national levels, with 22.3 per cent of the population aged 20 and older with less than high school certification, compared to the national average of 27.9 per cent. Nearly 13 per cent have a high school diploma but no additional education (compared to 14 per cent nationwide). On the other hand, postsecondary education is concentrated among trades, college diplomas and other non-university education, with 47.9 per cent having non-university postsecondary education, compared to 34.3 per cent of the national population; by contrast, 11.2 per cent have a university degree as their highest level of education, compared to 13.8 per cent nationwide.<sup>15</sup>

#### **4. The Regional Case Studies**

The case studies presented below represent a diversity of skills upgrading initiatives. All projects share the same belief in the importance of essential skills upgrading to meet individual, community, and business needs.

These cases mainly come from two neighbouring regions in Canada. The first region is Yellowknife, Northwest Territories, where we examine cases at two diamond mines (Diavik and BHP Billiton) that have implemented skills upgrading initiatives aimed largely at the Aboriginal persons in their communities and workforce.

The second region is the Province of Alberta, where we largely focus on skills upgrading programs at two oil companies (Syncrude and Suncor) that have large oilsands mining operations near the city of Fort McMurray, in the northern part of the province. We also discuss an initiative in Fort McMurray that is geared specifically at upgrading skills of young aboriginals (Shapotowak) and finally we present information on a non-profit organization whose mandate is to promote essential skills and skills upgrading in the province of Alberta (AWES).

The two main case study regions have unique labour market needs and characteristics and these cases demonstrate how skills upgrading initiatives have been tailored to meet the specific needs of employers, employees, and potential employees in these communities.

Our last group of case studies presented includes initiatives by the trucking sector council to address the basic skills needs of the workforce in their sector. We also include an enterprise that was not included in the original study site visits that is part of the trucking sector. An interview was conducted with Westcan Bulk Transport Limited, a transportation company located in Alberta.

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<sup>14</sup> Source: Statistics Canada, 1994 and Statistics Canada 2004g.

<sup>15</sup> Source: Statistics Canada 2004h.

It should be noted that at the time of the study, these enterprises were at different stages in use/implementation of their skills upgrading initiatives. Some have had a number of years experience with these initiatives (e.g. Syncrude) while others had just recently launched their respective programs/pilots (e.g. Diavik).

#### **4.1 Northwest Territories Case Studies**

The case studies we present from the Northwest Territories are largely focused on skills upgrading of Aboriginal Canadians in that region.

There are several unique features of the two case studies in Yellowknife. One is that both diamond companies, Diavik and BHP Billiton, have signed socio-economic agreements with the Government of the Northwest Territories and local Aboriginal groups to meet employment and training targets. These socio-economic agreements exist to ensure that residents of the Northwest Territories are able to benefit directly from the economic activity of the diamond mines.

For example, BHP Billiton signed a socio-economic agreement in 1996 with the Government of the Northwest Territories in which the company committed to giving hiring preferences to “Northerners” and Northern Aboriginals. Northerners are defined as permanent residents of the Northwest Territories. The company has a hiring target that 62 per cent of its workforce will be Northern Residents (Northerners). Northern Aboriginals must be a minimum of 50 per cent of the Northern Resident hiring target. In other words, Northern Aboriginals must make up at least 31 per cent of the total workforce.

Similarly, Diavik signed a socio-economic agreement in 1999 and is committed to having at least 66 per cent of its total workforce comprised of Northerners. It is also expected that at least 40 per cent of the operation’s workforce will be Northern Aboriginal, which means Northern Aboriginals will account for 60 percent of the Northerner hiring requirement. Diavik has also signed participation agreements with five aboriginal groups in which the company has provided extensive commitments to training, employment, business opportunities, and scholarships (college and university).

Meeting these hiring targets can pose a challenge given that the NWT has a population of only 42,000. Aboriginals make up half the population of the Territory. The focus of the case studies we examine in Yellowknife is on Aboriginal skills upgrading and how these organizations help to build and develop the workforce they need.

Another unique feature of these cases is the remoteness of the operation of both diamond mines. Both mines are located approximately 300 kilometres northeast of Yellowknife and except for a short period when a winter road exists to the mines, they are only accessible by air. Air transportation between Yellowknife and the respective mine sites is paid for entirely by the diamond companies.

For many of the Aboriginal workers in the diamond mines, these are the first paying jobs they have held, a fact stressed in several interviews. Moreover, English is the second language to many of these workers.

## **BHP Billiton Diamonds Inc.**

### *Company Background*

BHP Billiton (BHPB) operates Canada's first diamond mine at its remote Ekati Diamond mine site located approximately 300 kilometres northeast of Yellowknife, the Northwest Territories. Construction of the mine began in 1997 and diamond mining began in 1998. The mine currently employs approximately 750 workers.

The mine operates 24 hours a day, 365 days a year. Workers work 12 hour shifts, seven days a week, on a 2 by 2 shift rotation with two weeks in (on-site), and two weeks off (off-site).

### *Skills Upgrading at BHP Billiton*

In response to the low levels of literacy among a substantial proportion of the region's labour force (NWT Literacy Council 2004), BHPB developed the Workplace Learning Program (WLP) - an on-site workplace literacy training program geared towards literacy-skills upgrading. The program focuses on teaching the essential skills of reading, writing, math (numeracy), and oral communication. Individuals in the WLP can range from those working on pre-literacy programs to those focusing on pre-apprenticeship.

The WLP was developed to assist the company in achieving its Aboriginal hiring commitments as well as ensuring a safe and productive workforce. Given that approximately 30 to 35 per cent of the mine's Aboriginal employees struggle with reading simple documents (Schierbeck and Devins, 2002), literacy skills upgrading, particularly for new hires in entry level positions, is a key component of the WLP.

In addition to the core literacy upgrading component, the WLP offers pre-trades and apprenticeship preparation classes and there are also structured classes and support for workers who wish to complete their high school equivalency diploma.

The WLP is available to all employees and BHP contractors who wish to upgrade their skills. Participation in the program is voluntary and confidential. The WLP was officially launched in 2001 and since then approximately 140 employees have been through the program. These 140 workers who have accessed the WLP represent a combination of learners. Some of the original learners in the WLP are still in the program as they are at very low literacy levels. Others include those who have successfully passed the GED (high school equivalency exam) (18 learners passed the GED in June 2004). Approximately 15 learners have successfully written Pre-Trades exams and are now in apprenticeship programs. Another group of learners have accessed the WLP for assistance while doing their apprenticeship training and have completed their Trades Training and are now Journeyman Ticketed Tradespeople.

Operation of the WLP is funded by BHP Billiton with an annual budget of approximately \$450,000 (Canadian dollars). This amount includes three adult educator<sup>16</sup> salaries and benefits, computer resources, book resources, materials, mine site flights to and from Yellowknife, and accommodation and food for the adult educators. The Government of the Northwest Territories

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<sup>16</sup> The term "adult educators" generally refers to educators or trainers who specialize in working with adult students (or learners). This can be in a school or workplace setting. Adult educators typically have a university degree in education, human resources or a variety of other areas that qualify them as subject matter experts. Some colleges may require that their adult educators have a certificate in adult education programs.

provided a small amount of funding towards part of the salary of the Pre-Trades Adult Educator in 2004 and a slightly larger amount in 2003.

The company generally grants work-release paid time to attend the WLP, although sometimes students participate on their own (unpaid) time. The program is primarily focused on on-site learning at the mine site in either a small group setting or through one-on-one tutoring with an adult educator. However, workers are also encouraged and supported to continue their learning when they return to their home communities on their two weeks off.

The company worked with Bow Valley College to develop customized essential skills profiles for four entry-level occupations (Maintenance Technician, Process Plant Operation Assistant, Warehouse Technician; and Heavy Equipment Operator). BHPB also worked with Bow Valley College to develop customized versions of Test of Workplace Essential Skills (TOWES), called “Pre-Assessment TOWES”, used to identify the gap between the skills that are required in a job and what the skill level is for an individual. The WLP adult educators use the customized assessments to establish a student’s workplace literacy skills and then develop a learning program for the individual worker. Pre-Assessment TOWES is used by BHP not as a screening tool, but rather as an assessment tool. BHPB covered the full cost of developing the four customized essential skills profiles and customized Pre-Assessment TOWES tests with Bow Valley College.

A unique feature of the WLP is the fact that the adult educators conduct job shadowing with their students. The adult educators go out in the field with the students to see how they apply their learning on the job. For example, heavy equipment operators are required to write frequent entries in logbooks as they move throughout the mine site, recording information on where they picked up a load, what are its contents, and where the load is destined. By shadowing these employees, the adult educators are able to see where literacy skills are used in the job and assess how well a student is progressing and determine where they might need further help.

#### *Perceived Keys to Success*

BHP Billiton plans to conduct a formal assessment of the WLP program in a few years to determine the long term impacts on the workers and operations. However, the company sought feedback from company supervisors for an interim report to see if the WLP is having any impact. According to the adult educator interviewed for this case study, the feedback from this report has been quite positive as supervisors have identified the following outcomes of the skills upgrading initiatives: increased self-esteem of workers; less difficulty in getting tasks done; increased participation by workers; workers speaking up more; and a safer work environment. No WLP participants were interviewed as part of this case study and therefore we have no direct feedback from employees.

According to the adult educator interviewed, there are a number of factors that have contributed to the early success of the WLP. One key to success of the program was support from top management at the company. The CEO of BHP Billiton took a strong position in supporting skills upgrading with paid work release time to participate in the WLP. It was felt that the program would never have been a success if this paid release time was not a component of the WLP.

Early stakeholder involvement in the program design and launch was also noted as another key to success. A deliberate effort was made to go to the workforce and educate them about the program and get buy in from management and employees before the program was launched. For

example, crew presentations were made at the mine to inform workers about the WLP and emphasize that the program was optional and had nothing to do with evaluating employees. The adult educators also regularly check back with stakeholders and seek their feedback in developing the curriculum and courses. Team leaders regularly give feedback on the program and what progress they see in their workers who are part of the WLP. This allows the program to continually evolve to meet training needs of the company as well as the individual employees.

Another key to success noted during the interview was the fact that the program curriculum is customized for each student based on their individual assessment with the adult educators. The job shadowing of the adult trainers with students in the field has also helped to further customize the training for the individual workers.

### *Challenges*

A number of challenges in implementing and running the WLP were also noted during the interview with a BHP Billiton adult educator. A key challenge for the company was the fact that basic literacy programs are not common in most workplaces. Therefore, the company has had to create the WLP from scratch and continues to adapt the program to meet changing needs.

Another challenge is recognizing that for some there is a stigma around low literacy. Given the close quarters at the mine site, it can be somewhat difficult to maintain confidentiality of a students' participation or progress in the WLP.

The split schedule of two weeks on-site and two weeks off is also noted as a challenge in operating the WLP. The split schedule means the adult educators have limited time with some workers and have only certain windows to work with students before they are gone home again. This can sometimes interfere with an individual's program development or progression.

In running a program like the WLP, a continuous challenge is to balance the training needs of the students and the need to run the mine. Even though there is a great deal of management support for the WLP, it is understood that BHP Billiton is a mine and not a school. Although the company is accommodating in terms of release time for workers to participate in the program, there is recognition that safety and production concerns at the mine must override WLP training needs.

The program has been sufficiently popular that there is now a waiting list of employees who wish to participate. The number of students who can participate in the WLP at any point is limited by the fact that there are only three adult educators at BHPB and, with the 2-week on 2-week off schedule of the mine, all three may not be on site at the same time. Until a full assessment of the WLP is conducted, it is difficult to assess whether students are moving through the program at a sufficient speed or whether hiring more adult educators might be needed to address the backlog.

Despite these challenges in running the program, it seems clear that the WLP has had a positive impact on productivity and safety in the workplace and on the self-esteem of the participants.

## **Diavik Diamond Mines Inc.**

### *Company Background*

Diavik Diamond Mines Inc. (DDMI), based in Yellowknife, Northwest Territories, Canada, is a subsidiary of Rio Tinto plc of London, England. DDMI operates the Diavik Diamond Mine (Diavik) located on a 20 square kilometre island, informally called East Island, in Lac de Gras, approximately 300 kilometres northeast of Yellowknife. The Arctic Circle is located 220 kilometres north of the mine.

Diamond production at the mine began in 2003 and the ore will be mined over an estimated 20 year mine life. The mine plan includes mining of four diamond-bearing ore bodies commonly called kimberlite pipes using a combination of open pit and underground mining methods.

To support diamond mining, the Diavik mine site includes a permanent worker accommodation complex, a processing plant, maintenance shops, a diesel power generating facility, fuel storage, jet airstrip, water and sewage treatment facilities, and a processed kimberlite containment structure. The project capital costs were nearly \$1.3 billion (Canadian dollars) and the mine currently employs approximately 700 workers.

### *Skills Upgrading Initiatives at Diavik*

For this study, we look at two key skills upgrading initiatives at Diavik. One is geared toward building capacity in the local community by upgrading the skills of the local population through community based training programs. The second initiative focuses on how Diavik works to provide skills upgrading programs for its workforce, focused largely on entry level positions, through its own company learning centre.

### *Community Based Training Programs*

Diavik's unique community based training programs were designed to offer northerners opportunities that will prepare them for long term employment with Diavik or with other northern based businesses. The basic idea behind the community based training programs is to build capacity in the local communities that can be moved into the company workforce. In other words, it is about building workforce skills in the local workforce that Diavik and other employers need to build and operate their business.

The motivation for the community based training is largely influenced by the socio-economic and participation agreements noted earlier. To support Diavik's employment commitments and meet its human resource requirements, the company works to upgrade the skills levels of the local communities from which its potential workforce is drawn. Diavik helps to develop community based training programs through partnerships with local communities, territorial and federal governments, Aurora College, contractors, and other educational institutions.

Training includes a combination of classroom study and hands on training. The classroom component teaches basic academic and personal skills development by qualified adult educators. The hands-on training component has included training in construction related activities such as welding, carpentry, electrical and plumbing skills and has also included training on heavy equipment operation.

One of the key elements of Diavik's community based training programs is to train participants on projects that would benefit the community. Students have worked on a variety of community infrastructure projects including: building a bridge; completing a community airstrip; and building community halls. One of the largest training courses included helping to build the permanent worker accommodation modules for the mine site.

The community based training programs have also evolved to meet the needs of the Diavik operations. Recognizing the need for employees to help build the mine, the first training programs were geared at building capacity in the communities around construction skills. Diavik's construction training courses produced 234 graduates, a 77 per cent success rate. Of these graduates, 70 per cent moved on to employment at Diavik, with other mines, or with the local government. As the diamond mine has moved from construction phase to operations, training is now focused on training northerners for safe and productive employment within the mine and learning the skills necessary to operate the specialized equipment on site.

The community based training not only provides northerners with the technical skills they would need in future jobs at Diavik, but it also focuses on building essential workforce skills. Students are taught the importance of teamwork in the workplace and how it is crucial for success at work. The training programs are designed so that students must learn to work together and accomplish tasks as a group, which is something that would be required when working at the Diavik mine. Students also work on reading and writing skills which are crucial for safety in the workplace.

The idea of shift work was also deliberately introduced into the communities through community based training. The Diavik mine runs on a 2 by 2 shift rotation (2 weeks on site, 2 weeks off), with 12 hour shifts, seven days a week, 365 days a year. This same shift routine (two weeks on site, two weeks off) was incorporated into the community based training program model. Students work two weeks in a classroom setting and two weeks on the practical component. This helps students become familiar with working the same shift schedule they would work if at the Diavik mine.

For many in these northern communities, jobs at Diavik (as was the case at BHP Billiton) are the first paid jobs they have held, a point that was emphasized by many interviewed for this study. This has influenced the skills upgrading that is required. Diavik has built a system through the community based training programs that would be most effective to meet its social obligations and workforce needs at the same time. According to the company, almost 90 per cent of over 200 participants in the community based training programs have taken up employment at Diavik or elsewhere (Diavik Diamond Mines Inc. 2003).

#### *Perceived Keys to Success*

Diavik managers that were interviewed for this study attribute the success of the community based training programs to a number of factors. Bringing the training to the communities allowed Diavik to build relationships and trust with the communities where it would ultimately be seeking its current and future workforce. This community mobilization was a tool to make northerners aware of what working in a mine is about. The communities have taken ownership of these courses and now approach Diavik to help in course delivery.

There was a need to change what people see in the community in terms of job prospects. Diavik needed to make communities aware of what mining is about and the potential for future jobs for northerners. The practical training focuses on projects within and for the community.

The community benefits from having something constructed that will be used by residents (e.g. a community centre, a road, or an arena) and students benefit by learning skills they can take with them in a future job. There is a direct link between the skills developed in the community based training programs and the skills required at the Diavik mine site, thus allowing program participants to take advantage of jobs at the mine, or in other organizations, given the strong skills match.

The company has noticed that hires that were originally part of a community based training initiative have generally done better in the workplace in terms of fitting in and working well with co-workers. This is largely attributed to the teamwork emphasis of the community training and that students are exposed to workplace skills they will need to be successful on the job.

Partnerships are also seen as key in the development and success of the community based training programs. The company attributes much of the success of these initiatives to its various partners such as: Aurora College, corporate partners, government, and the communities themselves. Diavik and its partners have each provided varying amounts of time and funding to specific community based training programs. The company notes that communities are now approaching Diavik for new projects. The communities have raised the funds themselves and have asked Diavik to facilitate the program for them.

#### *Diavik Employee Skills Upgrading*

To address the training needs of its employees, Diavik operates a Workplace Learning Centre (WLC) at the mine site where two adult educators assist workers in developing training plans or upgrading programs. The WLC is now in its second year of operation at the mine site. Workers can upgrade math, science, and computer skills and they can also write a high school equivalency exam (the General Equivalency Diploma – GED), trade apprenticeship exams, and college/university exams on site. Diavik pays the entire cost of running the WLC. In the first year of the WLC's operation, the annual budget was \$60,000 (Canadian dollars). In year two, year, the company has budgeted \$100,000 (Canadian dollars) to run the centre (a 67 percent increase over year one). These annual budget figures do not include the cost of the two adult educator positions.

A unique feature of Diavik's approach to employee skills upgrading is that learning does not end when the workers return home (as part of the 2 week on-site, 2 week off-site rotation). Diavik has developed a system that allows for workers to continue their training in their community while off-site during their two weeks off each month. The company works with local communities and with Aurora College's satellite community learning centres, which are in many northern communities, to ensure that learning can continue when an employee returns home to his or her community. The idea is to have a learning centre in each community that employees can use to ensure their learning continues while away from the mine site.

#### *Perceived Keys to Success*

According to managers at Diavik, the early success of the Workplace Learning Centre has been attributed to a number of factors. Support from senior management at Diavik has been seen as a key factor in the skills upgrading initiatives at the mine. This support has translated into release time for employees to participate in the WLC programs, although it should be noted that there is no official company policy with regard to release time.

Managers also noted that they had done a lot of research on skills upgrading and who was doing what. They had talked to other organizations that had their own initiatives in place and found out about their successes and failures.

The company also has made a deliberate effort to not aggressively push the program, but to rely on word of mouth of employees to help market the program. Managers also coach mine supervisors to encourage employees to use the programs offered and the company celebrates success whenever it can.

As with the community based training programs, having the community involvement in this program is seen as key to success. Skills training and learning opportunities are brought to local communities thereby building trust and capacity in the community.

### *Challenges and Lessons Learned*

It is too early to assess the long term impact of the Workplace Learning Centre (WLC) on the skill levels of employees given that it is only in its second year of operation. However, the company has been making adjustments to the program as they move along. According to one of the company managers, one of the key challenges in running the WLC is maintaining credibility and ensuring that the centre is seen as adding business value to the organization. As such, the centre has recently refocused itself more clearly “moving it from a community centre to a learning centre”. For example, the WLC used to offer classes in activities such as painting and beadwork. The company has removed these types of activities from the WLC and hired two on-site recreation coordinators to look after these types of non-business development and recreational activities. There is a constant recognition that the mine is a place of business and not a college. Managers of the centre note that they must focus on what is essential for workplace development to meet the company’s business and safety needs. This means ensuring that the company has a skilled and literate workforce.

Given the fact that there is no official company policy in terms of release time to participate in WLC programs, the centre must constantly show that it is adding value to maintain the support it has received thus far. As one manager noted, a goal is to have the WLC seen as so valuable in the company that managers are more willing to offer release time for employees to attend programs and workshops.

### *Essential Skills at Diavik*

Diavik recognizes the importance of developing the essential skills of its workforce to meet its operational needs and for workers to be safe and productive at the mine site. Safety at the mine is a key motivator in developing essential skills of the mine workforce, particularly for those with low levels of literacy. The importance of safety was noted frequently by several managers who were interviewed and it is an issue that is continuously reinforced in operating the mine. Reading and writing skills are seen as crucial elements in workplace safety.

Recognizing the low levels of literacy in the workforce, particularly for those in entry level jobs, Diavik began a program that focuses on skills upgrading for low qualified employees, largely focused on essential skills around workplace literacy. The company noted that it did not want a literacy program per se, but rather wanted value added knowledge for employees. In response, Diavik partnered with Bow Valley College in developing customized essential skills profiles in four entry level positions that are seen as critical to operations: heavy equipment operator; warehouse technician; site services operation; and process plant operator. This profiling

work was conducted by specially trained consultants well versed in the same profiling methodology used by HRDC in the development of the Essential Skills Research project (noted earlier). These customized profiles were used to develop customized versions of TOWES tests (the test of workplace essential skills). Using this assessment tool, the adult trainers at Diavik are able to identify gaps between workers' skills and the skills required to be effective and safe on the job. They are then able to determine the most effective interventions for the individual workers and provide that training.

The costs of developing the customized essential skills profiles and TOWES tests with Bow Valley College were paid for entirely by Diavik.

It is important to note that Diavik, like BHP, chose not to use essential skills assessment tools to pre-screen potential employees (contrary to our case studies in Fort McMurray, Alberta later in this chapter). For Diavik (and BHP), building a skilled workforce requires that the TOWES tests be used as the basis for designing skills upgrading activities, not as a screening tool. Employees hired for the entry level positions are largely hired based on their attitude, previous work experience, and work ethic rather than their educational background or literacy skills. The company recognizes that they have to accommodate the workforce available to them, as well as their current skill set, to do the jobs they have.

Using the customized essential skills profiles and TOWES tests as an assessment tool began as a pilot in early 2004 and approximately 46 employees have participated in the pilot so far. New entry level hires participate in one-on-one sessions with the Diavik adult educators to assess their skill level and develop a customized training path for their specific needs. The literacy training for some students can be quite intensive depending on their current literacy level, with some students having six hours of training per day. Management supports this initiative in giving time off for students to participate in training during their shift.

Although this program was still a pilot at the time of the interviews for this case study, the company has already seen skills improvements by many participants. Prior to participating in the program, only 20 per cent of the pilot students had passed their first reading test which was conducted through a computer based test (CBT). After the pilot students completed their one-on-one training with an adult educator, almost all students (97.7%) passed this same CBT reading test.

An interview with one of the students who has participated in the pilot revealed how successful the pilot had been to him personally, not only with improving his literacy skills but also in terms of building his confidence and self-esteem. This student found that his training had made his job easier, faster, and more importantly perhaps, motivated him to want to learn more. He had also noted that he had continued his training while at home during his two weeks off (and off-site) and had the support of his family and the community in helping him.

The pilot using the custom essential skills profiles and custom TOWES tests has been seen as such a success that the company is now developing a full programme based on the pilot. The details of the programme are still in development.

### *Perceived Keys to Success*

Based on the interviews at Diavik, the key to success of this training pilot has been attributed to the ability to develop customized strategies for each individual employee. The essential skills

profiles and TOWES tests developed specifically for Diavik allow the adult educators to develop a custom training map for each student to meet their particular development needs.

### *Challenges and Lessons Learned*

A challenge noted in running the pilot was getting management support for release time for these employees to train. As noted earlier, although management has been quite supportive in granting time off to train, there is the constant reminder that the mine site is a business operation and that safety and operational needs need to come before training.

A lesson learned in developing this pilot is that some of the computer based training (CBT) reading courses that were being used by Diavik in the Workplace Learning Centre were too advanced for the literacy levels of many entry levels workers. These CBT courses are now being adjusted and customized to the reading levels of the workers who use them.

Both diamond companies in the Northwest Territories invest heavily in upgrading the essential skills of many of their employees even though there is competition between these two companies (as well as other employers in the area) for employees. The diamond companies acknowledge that poaching by other employers does occur and that another organization may benefit from the skills upgrading these companies have provided. However, employee turnover or poaching was not cited as a major issue by either of the companies interviewed. It would seem these companies have little choice but to continue with their skills upgrading initiatives in order to meet the social obligations of their socio-economic agreements (including hiring quotas) with the Territorial Government. At the same time, there is also the need to have a skilled and literate workforce to meet operational, business, and safety needs. With a third diamond mine, De Beers Diamonds, set to begin mining operations in 2005/2006, the competition for employees will continue to grow. As one stakeholder at Diavik suggested, each of the diamond companies will have to focus on skills upgrading, but the company [Diavik] will have to strive to be an employer of choice to continue to attract new employees and keep current employees.

## **4.2 Case Studies in the Province of Alberta**

The case studies presented below focus largely on the skills upgrading initiatives of oil companies, Syncrude and Suncor, located in Fort McMurray, Alberta.

It is noteworthy that these two companies use the Test of Workplace Essential Skills (TOWES) differently from what we saw in the cases presented earlier in Yellowknife. Customized TOWES tests are used by both oil companies as one of their screening tools for employee recruitment for specific entry level positions. This contrasts with the approach taken at the diamond mines in Yellowknife, where TOWES is deliberately not used as a screening tool but rather as an assessment tool. Both oil companies also require all applicants to have a minimum Grade 12 (high school) diploma.

The sharply different labour market in Fort McMurray is likely a key reason for the different approaches in the use of TOWES in this region. In Fort McMurray, the oil companies received hundreds of applications a week from individuals seeking employment and they needed a system to filter the huge number of applicants to ensure they had the sufficient skills levels required for specific jobs. Keyano College (in Fort McMurray) and Bow Valley College worked together to develop the customized TOWES tests for specific entry level positions at both oil companies. These tests are based on the local labour market needs of these oil companies but are also

consistent with national occupational standards. Both Syncrude and Suncor paid for the cost of their customized essential skills profiles and TOWES tests.

It should be noted that some stakeholders in Alberta indicated that they did not agree with the approach of using TOWES test scores as a screening tool for hiring new applicants. Some felt that the test may screen out qualified candidates who simply did not perform well on the TOWES test but that otherwise might be highly skilled individuals. In Yellowknife, stakeholders noted that the local labour market would not respond well to any perceived “employment test” and therefore have not used TOWES as a screening tool and do not intend to do so.

## **Syncrude Canada Ltd.**

### *Company Background*

Syncrude Canada Ltd. (Syncrude) operates the largest oil sands facility in the world, producing crude oil from the Athabasca oil sands formation in Alberta, Canada. Syncrude operates large oil sands mines, extraction and upgrading facilities and utilities plants at its sites north of Fort McMurray, Alberta. Construction began on the Syncrude site in 1973 with an official opening in 1978. Syncrude is the world’s largest producer of crude oil from oil sands and the largest single source producer in Canada. Syncrude currently supplies 13 percent of Canada’s annual oil requirements.

Syncrude is one of the largest private sector employers in Alberta, employing approximately 4,000 people directly and an average of 1,000-1,500 maintenance contractor employees. Syncrude is also a major industrial employer of Aboriginal people in Canada. Aboriginals make up 12.5 per cent of its employee/contractor workforce.

### *Skills Upgrading Initiatives at Syncrude*

Syncrude has long recognized that its business success is dependent on a committed, skilled, and motivated workforce. Essential skills training has been a major focus of the company as noted in the quotation from the former head of Syncrude:

“Essential skills training ensures that Syncrude employees have the skills and confidence required for today’s workplace, and that we are prepared to meet the challenges of the future.” Eric P. Newell, Former Chairman and CEO Syncrude Canada Ltd.<sup>17</sup>

The Syncrude mine sites are very large industrial operations, involving huge capital equipment, and requiring a highly reliable workforce. At the same time, the importance of safety in the workplace is of paramount importance at the mine sites. The company therefore needs a workforce that is literate, numerate, and flexible - and workers that are able to communicate effectively with each other.

In the late 1980’s, Syncrude recognized that there was a need to increase literacy skills among its workforce. In 1987, Syncrude partnered with Keyano College in Fort McMurray to develop, manage, and deliver a workplace literacy program called ERIC (Effective Reading in Context). After several iterations and test pilots with supervisors at the company, the program had its

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<sup>17</sup> Quotation drawn from presentation by representative from Keyano College to OECD Canadian study group in Fort McMurray, Alberta, May 13, 2004.

official kickoff in 1988 and is still in place at Syncrude today. Since its launch, the ERIC program has had over 1500 participants.

ERIC is promoted as a “workplace essential skills reading comprehension program” and is designed to help employees become more effective in the workplace by increasing their reading comprehension skills through a series of reading workshops.

The program is offered to all Syncrude employees free of charge and is strictly voluntary and completely confidential. The workshops are offered away from the Syncrude mine sites at the Keyano College campus in Fort McMurray. Having the program off-site, in a college setting, was a deliberate decision by the company to emphasize the confidential nature of the program. Participants are also given orientation sessions at the campus to make them feel more comfortable and to familiarize them with the surroundings.

The program is delivered by instructors from Keyano College. There is no testing of program participants. Instructors conduct confidential one-on-one consultations and assessments with participants and then decide on a 12, 28, or 40 hour workshop. The choice of which workshop to participate in is generally left to the discretion of the individual depending on their needs and time availability as well as from feedback from the instructors. The workshops are conducted in small group settings with up to eight participants per group. The use of small groups is cited as a key strategy as group members are found to be very supportive of each other as they move through the workshops.

Syncrude gives employees release time to participate in the workshops. The workshops are generally offered during working hours, so workers are paid while attending the classes during their working hours. However, there is also a lot of give and take by both the employees and the company with respect to release time. For example, if a workshop happens to fall on an employee’s day off, then they are still expected to attend the workshop, but are not paid for this time. Also, if an employee is scheduled to work a night shift the day a workshop is offered, then they are often able to switch to a day-shift so they are able to attend the workshop during working hours. This give and take approach has been recognized as a key factor in the success of the program.

A unique and important feature of the ERIC program is that participants themselves identify the materials in the workshops they want to work with. The reading materials used in the program are authentic workplace materials that employees would encounter in the workplace. The customized workplace examples and exercises allow participants to see the connection with what they are learning in the classroom and how to apply this learning directly in their jobs. It is recognized that participants are adult learners and have a wealth of workplace knowledge that they bring to the table. They too are partners in developing the program content. ERIC is fully flexible and can be customized for the different groups depending on their specific needs. The content is adjusted so that it is relevant and practical in the workplace. For example, the content used in an ERIC workshop for a group of Syncrude engineers would be quite different from the content for a group of heavy equipment operators. Hence, participants learn reading strategies that they can apply immediately to materials they encounter each day in their jobs.

Building on the success of ERIC in developing essential reading skills in the workplace, management at Syncrude also recognized a need to further develop the math skills of its employees in the 1990’s. Once again, Syncrude partnered with Keyano College in developing and launching SAM (Syncrude Applied Math) in 1997 (originally the program was titled WIN – Working in Numeracy, but the name was changed last year).

SAM is promoted as “a workplace essential skills math program” with customized workshops designed to include examples and exercises of relevant workplace math requirements. The SAM program follows the same model as the ERIC program. As with ERIC, participation in the SAM program is voluntary and confidential. SAM is offered to all Syncrude employees free of charge and the courses take place at Keyano College in small groups of up to eight participants. Since its launch, the SAM program has had over 300 participants from Syncrude.

The ERIC and SAM programs are intended to help employees learn important reading and math skills strategies that make them more flexible and adaptable workers in a continuously changing workplace.

### *Benefits to Employees*

As part of this study, interviews were conducted with a group of Syncrude employees who had participated in the ERIC or SAM programs. All in this group saw participation in these programs as a positive experience and what they learned as invaluable in their work.

The group indicated that the benefits of ERIC and SAM are more than just learning strategies around reading and math, they are also about confidence building. Many also noted that the programs helped with their personal growth and had increased their self esteem. Some employees indicated that ERIC or SAM had helped them prepare for exams related to their jobs.

All indicated they would recommend ERIC or SAM to their colleagues and the majority had done so. Support by their supervisors to participate was cited as a key to them succeeding in the program and workshop participants liked the fact there was no testing to participate in the programs. All commended the instructors and noted they were key determinants in the success of the programs. The instructors were commended for their application of classroom discussions to work settings. Some noted that they felt a computer based version of these programs would likely not be as successful as the one-on-one instruction with the group and instructors are what make the program work.

The full cost of developing and running the ERIC and SAM programs for Syncrude employees was paid for by the company. Specific dollar figures are not available. Keyano College develops customized ERIC and SAM programs for other organizations on a cost recovery basis. The cost for adapting ERIC/SAM by Keyano College varies, but a recent adaptation of ERIC for a health organization cost approximately \$22,000 (Canadian dollars). This includes two pilot workshops, advisory committee meetings, and course materials and promotion.

The substantial costs of adapting and maintaining programs such as ERIC or SAM may mean that many organizations, particularly small-to-medium sized organizations, may not be able to afford to adopt these types of skills upgrading initiatives in their workplaces.

### *Perceived Keys to Success*

Managers and employees at Syncrude, as well as adult educators from Keyano, who were interviewed for this study identified a number of key factors that they attributed to the success of the ERIC and SAM programs. These are identified below.

The company deliberately chose to make the program voluntary and confidential. The programs have also not been aggressively marketed within the company, but rather the strategy has been to rely on word of mouth promotion from workshop participants. They are seen as

marketers of the program. Keyano College also regularly sends messages to all employees via email when new workshops are scheduled and posters of upcoming workshops can be found on employee bulletin boards throughout the workplace. The decision by the company not to aggressively market their essential skills programs (ERIC and SAM) is largely attributed to the fact that there is still a stigma around literacy and numeracy training.

The content of the workshops is customized for participants and relevant to their workplace. The curriculum for ERIC and SAM is based on printed materials that participants use in their jobs and is therefore something they can begin to use immediately when they return to work.

Interviewees also attribute the success of Syncrude's skills upgrading initiatives to the fact that the programs are continually adapting and changing. As described by one ERIC instructor, this is "a living program" and this flexibility allows the programs to be continually adjusted to the needs of each workshop group. The content of the workshops may change but the learning strategies remain the same.

As with many successful initiatives, having support from the top within Syncrude was also mentioned as a key to success. Having the support of the former CEO of Syncrude for skills upgrading initiatives has certainly played a large role in the success in the development of these programs. The company also has selected champions to continue to promote essential skills within the organization, but has always made the deliberate effort to go slow and not push these programs too aggressively.

### *Barriers*

As noted above, the number of employees who have participated in ERIC since its launch is substantial. However, there is evidence that need for the program (and for SAM) may exceed the numbers that have been entering. The fact that the company does not aggressively promote ERIC and SAM is seen as somewhat of a barrier by some. Participants noted that many employees are not aware of these programs as they are not heavily promoted by the company. This could suggest that some employees who may benefit most from these programs may not be aware that they are available. However, information on all training opportunities (including the ERIC and SAM programs) is available on the company intranet if an employee chooses to seek it out. There is somewhat of an onus on employees to find out what training opportunities are available to them. Some employees indicated that they wish they had taken these courses sooner but did not always know they were available and others suggested that there may need to be more aggressive marketing of the programs. For example, some suggested that Keyano College (which runs the ERIC and SAM workshops for Syncrude) should consider more customized targeted marketing of the workshops aimed at specific groups of employees within the company.

Also, since participation in these programs is voluntary, supervisory support for time off is not always guaranteed. Some employees noted that if your supervisor does not grant you time off to participate in the workshops, you may not be able to go. Some felt that if the programs were part of the new employee orientation program then all would be assured of time off to attend the workshops.

Despite some of the barriers noted above, the ERIC program has been seen as such a success in developing essential skills in the workplace that it has been brought to industry sector councils, and is integrated into the curriculum of a local high school English class. The promotion of ERIC and SAM in other sectors had largely been done through AWES (Alberta Workplace Essential

Skills) which will be discussed later in this section. Syncrude owns the copyright for ERIC and Keyano College delivers the program and adapts it for different settings.

Since all Syncrude employees must have a high school diploma, the Syncrude employees who participate in the ERIC and SAM programs are arguably not the “low-qualified” workers that we have seen in other cases in this study. However, the company has recognized that its workforce needs to continue to develop essential skills and sees these programs as a way that those they hire succeed in their jobs and development in the organization.

## **Suncor Energy Inc.**

### *Company Background*

In 1967, Suncor Energy Inc. (Suncor) pioneered commercial crude oil production from Canada’s Athabasca oil sands in Northern Alberta by producing the first commercial barrel of synthetic crude oil. Suncor is now a major North American energy producer and marketer. The company has four major business divisions in Canada and the United States and has over 4,000 employees (with approximately 3,300 employees in Fort McMurray).

The focus of this case study is Suncor’s operations in Fort McMurray, Alberta, where Suncor mines and extracts crude oil from the Athabasca oil sands deposit. Suncor is one of the largest private sector employers in Alberta. Suncor is also experiencing strong growth as crude oil production is expected to grow well into the next decade. The company’s capital spending plan for the next few years is expected to average between \$1.5 billion to \$1.7 billion with most of this money being spent in the Province of Alberta.

### *ERIC Pilot with Suncor Union*

In 2003, the union at Suncor invited Keyano College to run a pilot of the ERIC (Effective Reading in Context) workshop to some union members. ERIC was first offered to CEP Local 707 (the Suncor union) shop stewards, executive and safety representatives at Suncor. The cost of this pilot workshop was paid for fully by the union.

Participation in the pilot for was voluntary and there was difficulty at first in getting a sufficient number of volunteers. This was attributed to the fact that there is still a stigma around literacy training, a theme that was heard in the other cases described above.

According to the union president, the reaction by workshop participants has all been positive. Participants in the pilot noted they had learned new techniques to gather information more quickly and several had said it had a positive impact on their work. The union president also noted that it had deliberately chosen union leaders for the pilot as it might later need this same group to sell the program if it were initiated on a larger scale.

The cost of the ERIC program was cited as the key barrier to expanding the program further within the union or Suncor in general. Since there is no government funding for the delivery of the training, most companies will want to see a strong business case for implementing programs like ERIC before making the investment.

### *Aboriginal Initiatives at Suncor*

Suncor actively recruits Aboriginal people for employment with the company. In 2002, at the company's oil sands operations in Fort McMurray, the number of Aboriginal employees accounted for approximately 10.8 per cent of the workforce, just shy of the target of 12 per cent. This was up sharply from 1997 when Aboriginal employees accounted for only 2.3 per cent of the workforce.

The company also supports Aboriginal business ventures and education. In 2004, Suncor expects to issue contracts to Aboriginal owned and operated businesses worth about \$50 million. The company invests in Aboriginal education and skills upgrading through scholarships/awards to Aboriginal students who pursue studies that are relevant to Suncor's operations.

Suncor is also trying to bring awareness of job opportunities in the oil sands to younger Aboriginals. An interesting initiative by the company involves using "ambassadors" as part of its outreach to the local Aboriginal communities. The "ambassadors" are young Aboriginal Suncor employees who go into local high schools and talk to students about their jobs, how they got to be where they are today, and what skills and education they needed to get there. A hope of this initiative is that the "ambassadors" will encourage the students to graduate from high school if they see the success of fellow Aboriginals and future job possibilities.

It should be noted that this idea of "changing what people see" is something also noted in the earlier case studies in Yellowknife.

### **The Shapotowak Program**

As we saw in the case studies in the Northwest Territories, many companies in the Fort McMurray area also have Aboriginal hiring goals and have programs in place to help develop the skills of the local Aboriginal workers and communities. The Shapotowak Program provides an interesting case study of such an initiative.

The company 2000 Plus identified a need to get more of its young Aboriginal employees involved in skilled trades. 2000 Plus is a contractor to Syncrude and is owned by the Mikisew Cree First Nation of Fort Chipewyan, Alberta. It provides Syncrude with casual labour, grounds keeping services and labour support for its maintenance shutdowns. As noted earlier in the chapter, there is great demand for skilled technical trades personnel in the Wood Buffalo Region (Fort McMurray) and advancement within the local economy requires a solid foundation in basic education and workplace skills.

The program is a partnership between 2000 Plus, Keyano College, Syncrude Canada Ltd., Alberta Apprenticeship and Industry Training, the Athabasca Tribal Council and the Mikisew Cree First Nation. Shapotowak is designed to meet the needs of young Aboriginal workers at 2000 Plus who need skills upgrading but cannot afford to quit working full-time to attend school. The idea is to have young Aboriginal persons going to school and learning trades while they continue to work full-time. Tuition and other academic expenses are covered by 2000 Plus and the Athabasca Tribal Council. The Athabasca Tribal Council is largely funded by the Government of Canada. Most program classes are scheduled in the evening and are delivered at the Keyano College main campus in Fort McMurray. Also, Syncrude allows for up to 60 hours of release time per student (contract employees) to participate in any ERIC or SAM workshops (see Syncrude case study above for details on these programs) that may occur during a scheduled work shift. According to the chairperson of Aboriginal Education and Upgrading at Keyano College,

this flexibility offers learning opportunities to students who might not otherwise be able to pursue additional training because financial barriers have been eliminated.

The Shapotowak Program is a pilot program that was launched in January, 2004 involving twelve students, which was the maximum number of students to whom Syncrude felt it could offer release time. These twelve students in the pilot were chosen by 2000 Plus based on their work history, prior education, attitude, and their career goals. The final decision on who participated in phase I of the pilot was made by management at 2000 Plus. One interviewee suggested that the screening process might be improved in the future by having more stakeholders (including, for example, educators from Keyano College) involved in deciding who will or will not participate.

The program involves two phases which include both a classroom and hands-on component. The company also contracted with a psychologist to work with the students to help address any personal or family problems that could impact their success in the pilot. Phase I was completed in June 2004 and focused on essential skills upgrading in a structured classroom setting. This included ERIC and SAM workshops that focus on upgrading literacy and numeracy skills as well as courses on grammar and computer skills. Phase II is expected to be complete by June 2005 and will focus on skills required for career path choices such as preparation to write a high school equivalency exam or trades apprentice exams. The second phase is more job specific and will also include up to 100 hours of shop time for hands-on learning in specific trades. As we saw in the community based training programs at Diavik, the program is intentionally designed with a practical component that allows students to see how their learning would be applied directly in their jobs.

Officials at Keyano College indicate that not all twelve students have continued to Phase II of the pilot. As a result of some students leaving the community or leaving the company, only 4 to 8 students are participating in evening classes at Keyano. Despite the fact that not all 12 students in Phase I have moved on to Phase II, stakeholders at Mikisew Energy Services Group (which owns 2000 Plus) indicate that they see Phase I as a success. Another interviewee noted that this is the first time that Syncrude has given release time to contractors for training and this is likely a key factor in the early success of the pilot.

In light of the generally positive results from Phase I, the company hopes to eventually expand the program to all 2000 Plus employees (approximately 90 full-time employees). Only when the entire pilot is complete can a full assessment be undertaken and keys to success or lessons learned are determined. Other oil companies as well as other industries in the Fort McMurray area are closely watching to see how successful this pilot is as a way of reaching their own Aboriginal hiring goals.

### **Alberta Workforce Essential Skills Steering Committee (AWES)**

The Alberta Workforce Essential Skills (AWES) Steering Committee is a non-profit group focused on “promoting the advantages of a confident, innovative, and literate workforce” through the use of essential skills in the province of Alberta. The Committee has a mandate to facilitate training projects and raise awareness of the importance of essential skills training for workers.

Committee members include employers, labour organizations, and government. This organization provides an example of strategic partnering to promote essentials skills training.

The essential skills that AWES promotes are the same nine essential skills identified by Human Resources and Skills Development Canada (HRSD) noted earlier in this chapter (reading text, oral communication, document use, working with others, writing, numeracy (math), continuous learning, thinking skills, and computer use).

AWES takes a sectoral approach, rather than a company-by-company approach, in promoting essential skills. The committee has successfully worked with a number of sectors in the province of Alberta including: oil and gas (as noted earlier in the Syncrude case study); construction, food processing, forestry, and is currently completing work with the tourism sector – with the goal of putting essential skills on their respective agendas. For example, AWES and Keyano College developed customized versions of ERIC and SAM for the construction industry when the industry discovered a gap between the reading and math skills of workers and what was required in the industry.

By using a sector approach, the Committee hopes to promote essential skills across an entire industry, rather than just a single company, and in this manner to bring greater resources to the table. AWES has elected to work with these particular sectors because they have experienced growth and skills shortages. At the same time, business leaders and labour in these sectors have shown a strong interest in learning more about the impact of essential skills on productivity and performance.

The AWES Committee also supports essential skills practitioner training and development. This includes providing opportunities for professional development, access to essential skills resources and tools, and exposure to new research or projects on essential skills.

As a result of some AWES projects, materials have been developed that support enhancing and improving the literacy of workers. According to several stakeholders interviewed in this study, AWES has been a real catalyst for essential skills development in the province of Alberta. AWES committee members interviewed note that as long as essential skills are needed, the committee will be needed.

Funding for AWES projects has largely come from proposals submitted to the National Literacy Secretariat<sup>18</sup> and the government of Alberta (though Alberta Learning<sup>19</sup>). Funding is project specific and has also come from other federal departments as well as other provincial government departments in Alberta.

#### *Perceived Keys to Success*

Having representation from labour, business, and government on the AWES Committee is seen as fundamental to the success the Committee's initiatives. Some unions have even gone as far as to send their own trainers to be trained by AWES practitioners on essential skills projects and programs. According to one of the Committee members, having a variety of players at the table ensures that "we are all working toward a common goal".

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<sup>18</sup> The National Literacy Secretariat (NLS) is a federal government department that works to promote literacy as an essential component of a learning society and to make Canada's social, economic and political life more accessible to people with weak literacy skills. It works in partnership with the provinces and territories, other government departments, business and labour, the voluntary sector and non-governmental organizations to build capacity for literacy opportunities across Canada. Since 1988, the NLS has funded over 5,000 innovative projects in order to meet these objectives. Source: <http://www.nald.ca/nls/aboutnls/about.htm>.

<sup>19</sup> Alberta Learning is a department of the Government of Alberta that has a mandate to provide Albertans with access to quality lifelong learning opportunities. See: <http://www.learning.gov.ab.ca/default.asp>

Like many of the case studies noted earlier in this chapter, the AWES Committee is seen as successful because of those who champion and believe strongly in the importance of essential skills in the workplace. AWES Committee members include individuals who have championed essential skills in the companies noted in this case study and who promote essential skills across the province.

### **4.3 Other Case Studies in Skills Upgrading in Canada**

Essential skills are also being introduced in the training standards and programs set up by Canadian human resource sector councils. In Canada, many business sectors have a bi-partite council dedicated to human resource development which is funded by the federal government. Below, we examine how the trucking sector council has been promoting essential skills in the trucking industry in Canada. We also present information on skills upgrading initiatives in a trucking company in Alberta.

#### ***Canadian Trucking Human Resources Council***

The Canadian trucking industry employs over 500,000 people and contributes approximately \$42 billion to the Canadian economy. Established in 1994, the Canadian Trucking Human Resources Council (CTHRC) is a private, independent, not-for-profit corporation which plays a national leadership role in coordinating human resources research and development in the Canadian trucking industry. The mission of the CTHRC is “to assist the Canadian Trucking Industry to recruit, train and retain the employees needed to meet current and long term requirements”. The CTHRC is partially funded by the Government of Canada..

#### ***Essential Skills Toolkit***

In September 2004, the CTHRC launched the *Essential Skills Toolkit* - a suite of assessment and upgrading resources developed as part of its National Essential Skills Strategy. The toolkit is comprised of a number of resources to help promote essential skills within the trucking industry. These include:

Essential Skills Profiles: The CTHRC has completed occupational analyses for four occupations (Professional Driver, Dispatcher, Professional Driver Trainer, and Transportation Safety Professional) and developed custom essential skills profiles for these positions. These profiles are based on the nine Essential Skills identified by Human Resources and Skills Development Canada noted earlier in this chapter.

TOWES Test (Test of Workplace Essential Skills): The CTHRC has developed a customized version of TOWES for use by the trucking industry which focuses on testing the essential skills of reading text, document use, and numeracy skills.

There is no funding available by the CTHRC for customized essential skills profile development with organizations who may wish to develop enterprise-specific profiles as we saw in several of the case studies earlier in this chapter. One stakeholder noted that at least one trucking company did hire their own consultant to develop their own customized profiles specific to their organization.

## *TOWES-PD Pilot*

The CTHRC conducted a pilot project with the Canadian Petroleum Products Institute (CPPI) to look at the relationship between essential skills and driver safety among drivers used by CPPI members. The CPPI is an association of Canadian companies involved in the refining, distribution, and/or marketing of petroleum products. This partnership benefited both organizations - CTHRC was interested in further promoting essential skills in the trucking industry and CPPI had a desire to see an increase in safety and decrease in product handling incidents and personal injuries in their sector.

During the summer of 2003, 231 CPPI certified drivers in Alberta participated in the Test of Workplace Essential Skills for Professional Drivers - TOWES-PD. The pilot looked at the relationship between the safety records of these pilot study drivers and their respective TOWES test scores<sup>20</sup> on three essential skills: reading text; document use, and numeracy. Findings from the pilot test analyses found that drivers with higher scores on the three essential skills were less likely to have had product handling incidents or personal injuries..

Standards were also set for CPPI drivers on the three essential skills tested based on the CTHRC custom essential skills profile for Professional Drivers. The results found that 50% of drivers were below the benchmark for reading text, 41% were below the benchmark for numeracy, and 95% of drivers did not meet the benchmark for document use. According to stakeholders interviewed, this last result was particularly surprising given the trucking industry is very document driven. Document use among drivers who transport hazardous materials is particularly intense for safety reasons and drivers are continuously using and completing documents (e.g. delivery forms, inventory forms). The results of the pilot have the industry re-thinking its training protocols and how it designs workplace documents. The results of the pilot will help to identify and respond to learning needs among CPPI and CTHRC drivers. The findings from the pilot were also used to develop the CTHRC's *Essential Skills Toolkit* noted above.

The CTHRC does suggest caution regarding the use of pilot test scores to predict future accidents. That is to say, low essential skills test scores do not necessarily predict that an accident is more likely. The Council also does not recommend that TOWES-PD test scores be used for selection or screening purposes, but rather they should be used to assist in determining training needs.

This pilot was supported by the Government of Canada through CTHRC and by in-kind involvement by the CPPI trucking companies who granted paid release time for their drivers to participate.

The TOWES-PD pilot project is important because it quantitatively measures the link between essential skills and safety. The CTHRC can use these results to further promote the importance of essential skills within the trucking sector.

Keys to success and lessons learned from the TOWES-PD pilot study will be discussed below in the case study on Westcan Bulk Transport Limited which is one of the companies that participated in the pilot.

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<sup>20</sup> CPPI maintains a database on driver safety performance which was cross-referenced with driver TOWES test scores by a third part essential skills consultant for CTHRC.

### ***Westcan Bulk Transport Limited***

Westcan Bulk Transport Limited (Westcan) is a trucking company headquartered in Edmonton, Alberta. The company has approximately 600 employees and specializes in hauling liquid and dry bulk commodities in Western Canada. Approximately 80 of Westcan's fuel drivers were part of the CTHRC TOWES-PD pilot. An interview with the Director of Safety Training and Compliance at Westcan was conducted focusing on the company's experience in participation in the TOWES-PD pilot.

#### *Keys to Success*

The TOWES-PD pilot was mandatory for Westcan drivers based in Alberta delivering bulk petroleum products<sup>21</sup> and the company did acknowledge that there was some resistance by them. The company did a number of things before their drivers participated in the pilot to address this resistance. The company developed an information package to inform drivers about the pilot and what would be involved in the TOWES test. A privacy policy was developed that ensured all drivers that their individual test scores would not be available to Westcan. The CTHRC would only provide aggregate scores to Westcan (and other participating companies). If the company wanted an individual's test score for safety reasons then they would have to write the CTHRC and explain why they wanted the individual score and then the CTHRC would write the individual asking their permission to release their scores. Westcan has not requested the test scores for any of their drivers. Perhaps most importantly, drivers were assured that no one would lose their jobs as a result of their test scores.

A stakeholder noted that Westcan's Director of Safety, Training and Compliance was a strong champion of the use of essential skills in the trucking sector and recognized the importance of the TOWES-PD pilot. As we saw in several other case studies, a champion of essential skills has been found to be an important determinant in the implementation of essential skills initiatives.

#### *Lessons Learned*

One of the biggest lessons learned by Westcan from the TOWES-PD pilot related to having the TOWES tests conducted as a group. Unlike the other cases in this chapter where TOWES tests are generally conducted one-on-one with an adult educator or trained consultant (either of which must be a trained TOWES Test Administrator to conduct a TOWES test), participants of the pilot were tested as a group in a classroom setting. This was done for economic reasons as there were so many individuals to be tested at once. By having the tests conducted in a large group there could be fewer trained test administrators present and employees could return to work sooner (since they were there on paid company time).

However, during the pilot some workers were clearly having trouble with basic literacy as they were quite slow to complete the tests compared to some of their co-workers. The company recognizes that in any future tests that it would try to segment workers by their estimated literacy levels based on the company's history with the employee and general knowledge from working with them.

The CTHRC has identified two key strategies it will focus on based on the results of the TOWES-PD pilot. One is to focus on programs and initiatives to upgrade the skill levels of

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<sup>21</sup> All Westcan drivers haul dangerous goods but the TOWES-PD pilot only included those who are certified by the CPPI to haul fuel.

drivers who need upgrading the most. This will be accomplished through the development of new curriculum and training programs focusing on the essential skills that are most in need of improvement that can be offered to CTHRC members. A second strategy will be to focus on developing customized literature/documents for the trucking industry that better suit the actual literacy level of workers in the sector. Given the low scores on reading text identified in the pilot, current literature in the sector may be written at too high a level for many workers. Both of these strategies are currently in development.

## **5. Lessons Learned from Canadian Study**

The initiatives in the case studies presented in this chapter are somewhat diverse, and the local labour markets in the regions studied are arguably unique. Nevertheless, there are some lessons and keys to success that emerge from our examination of these initiatives.

### *Partnering*

Partnerships and collaboration were key factors in the development and implementation of many of the skills upgrading initiatives. In fact the term “partnership” was mentioned in virtually all the stakeholder meetings and follow-up interviews. No one organization has developed skills upgrading programs in isolation, but rather most have deliberately reached out to other stakeholders to develop programs or tools that address their needs.

In particular, we saw a strong collaboration between employers and colleges in developing programs or skills assessment tools. The examples in this study of collaboration between employers and local colleges to meet a local business need are contrary to some other research findings. An OECD publication suggests that “colleges are often unaware of business needs and do not tailor the training courses according to local employer demand” and that this is often due to a lack of resources for training providers to take a more holistic approach (OECD, 2002, pg 29-30). Organizations like the Alberta Workforce Essential Skills (AWES) Committee are helpful in this regard as they aim to educate adult educators about essential skills and help provide them with training opportunities.

Competing employers have even begun to partner with each other to address a common business need. For example, some of the diamond companies in Yellowknife (including Diavik and BHP Billiton) are working with the Government of the Northwest Territories to obtain funding to do more essential skills profiles for jobs within their organizations that they need to fill. As with their current essential skills tools, they can then map a training plan for the workers in these positions to meet their business needs. Although the companies are competing for business and employees, they see this as a common problem they all face and therefore are working together to find a common solution that will benefit all of them.

In several interviews it was noted that the employers, educators, communities, and students are all partners in their respective skills upgrading programs and each makes a valuable contribution to the program’s development and continued success.

### *Funding*

The majority of essential skills initiatives and programs implemented in the private companies presented in this chapter were funded entirely by the companies themselves. As has been noted, these are all large companies and therefore can arguably afford the costs of

implementing and operating their respective essential skills programs. For example, development and operation of the Workplace Learning Centre at Diavik, the Workplace Learning Program at BHP Billiton, and the ERIC and SAM programs at Syncrude were all paid for by these respective organizations.

The federal government has contributed funding to the development of several of the essential skills tools noted in this chapter, namely the essential skills profiles and the assessment tool TOWES (Test of Workplace Essential Skills). As discussed in this chapter, some organizations have themselves paid for customized essential skills profiles and TOWES tests to suit their specific occupations.

However, there is also currently no direct financial support from government for organizations to develop customized essential skills profiles and customized assessment tests (TOWES tests)<sup>22</sup>. This would suggest that it may be difficult for smaller organizations to develop tools to meet their specific workplace training needs. This underscores that essential skills may continue to largely be a focus in larger businesses who can afford the costs associated with developing, implementing, and maintaining essential skills programs within their workplaces.

### *Customization and Flexibility*

Assessment tools, based on a matrix of needed levels of “essential skills” by occupation, have been useful in identifying skill gaps and developing skills upgrading programs tailored to the needs of the workplace. Employers have cited the importance of having training that is highly customized to address both their needs and employees’ skill gaps.

At both diamond mines, customized essential skills profiles were developed for specific jobs within these organizations and customized assessment tests (TOWES tests) were also then developed for these company specific profiles. This allows for assessments to be made of the gap between a worker’s skills and what is needed to be safe and productive in the job. A customized training plan then can be made for the individual employee.

Likewise, many of the skills upgrading programs discussed in this chapter are deliberately designed to be flexible and customizable. For example, the ERIC and SAM programs developed at Syncrude are successful because they are content specific, and can be adapted to different settings (organizations and industries) and adjusted to the skills levels of each group of students. As noted by one stakeholder, “the content may change, but not the program”.

### *Time to Train*

Paid work-release time to train was found to be crucial in the success of many of the cases noted above. Although the companies were generally very supportive in granting work-release time, it should be noted that none of the companies had a formal policy to allow for release time. Also, as several stakeholders noted, there is a constant reminder that these are in fact business operations and their role is not to be educators, therefore business and safety needs must come first. Granting paid work-release time could pose a problem in small-to-medium sized enterprises as they may not be able to afford to have workers on training if this would slow down production or business.

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<sup>22</sup> BHP Billiton and Diavik are currently seeking funding from the Government of the Northwest Territories to conduct more custom essential skills profiles for occupations within their organizations (as noted earlier in the chapter).

### *Learning Environment*

While time off from work to train is crucial for the programs noted above, the location of the training is also an important factor in program design. Other OECD research has suggested that formal learning environments, such as classroom settings, tend to represent an obstacle toward skills acquisition by low-qualified workers (OECD, 2002). This contrasts somewhat with efforts in our case studies.

At Syncrude, the ERIC and SAM classes are deliberately offered away from the mine site in a college classroom setting at the Keyano College campus in Fort McMurray. This choice was made to help ensure the confidentiality of students in the program and those students who were interviewed all agreed that having the courses off site in a neutral location was preferable. Keyano College does recognize that the formal classroom setting might be intimidating for some adult learners and therefore an orientation session on the college campus is part of the course curriculum for ERIC and SAM. This may help offset any uneasiness that the adult learners have about returning to a classroom environment.

In Yellowknife, training programs are deliberately designed taking into account the fact that many students have been through the traditional classroom environment and failed, or in some cases have never been in a formal classroom setting. Therefore skills upgrading programs offered at Aurora College and through Diavik's Community Based Training Programs use a mix of classroom and hands-on training. It is recognized that classroom training alone is not an effective training method for low-skilled students. Students also need to have hands-on experience to see how their learning can be applied directly to their lives and in their work.

The cases in Yellowknife are also unique in terms of the local learning that is provided in many of the remote Aboriginal communities. The ability of workers to be able to continue their learning while home on their two weeks off is seen as key to the success in their skills upgrading.

### *Relevance*

The difficulties faced by many low-skilled workers (who sometimes cycle between low-paid jobs and unemployment) may reflect a failure of the secondary schools to adequately prepare young people who are not academically oriented for participation in the labour force. Therefore the relevance of the training and the selection of materials used in class curriculum are very important. The programs noted in this chapter are designed to make learning as relevant as possible by using authentic workplace documents for training purposes so students can see the direct connection to what they are learning in the classroom and how to apply this in their jobs.

### *Marketing Skills Upgrading*

Take-up of the skills upgrading programs has been enhanced by having employees who have participated in the programs act as ambassadors to 'market' the initiatives. The companies have deliberately chosen to take a low key approach in promoting their respective skills upgrading programs and have relied on employee testimonials as a key marketing tool. In this sense, the students are seen as "partners" in helping to further promote the program.

It is interesting to note that some employees who had participated in their organization's skills upgrading programs felt the company should now be more aggressive in marketing them, especially to new employees who can often be overwhelmed by the information when first starting, and may not be aware these programs are available. Some suggested that word-of-mouth

advertising might not be as effective with a company with several thousand employees and that customized marketing programs targeting specific employee groups might increase employee take-up of the programs or at least make more employees aware of them.

Champions within the management ranks and support for them from top-level management in the companies have also played an important role in sustaining/building the skills-upgrading activities.

Arguably trade unions could play a role in helping to promote essential skills within an organization or within an industry by providing information on essential skills programs to union members. Unions have played a role in the promotion of essential skills in the province of Alberta through the AWES Steering Committee (as discussed above).

### *Community Capacity Building*

Community capacity building was an important component in the case studies in Yellowknife. These companies have had to build the workforce they require to operate their mines, taking into account their social obligations in terms of Aboriginal hiring requirements. In the case of Diavik's five participation agreements with local Aboriginal groups, this has also meant the company has had to provide skills upgrading and training to local communities. This involves not only teaching basic literacy skills but also basic workplace skills. The skills these local residents learn can later benefit Diavik should they become an employee at their mine.

The two case studies in Yellowknife are again noteworthy in the fact that these organizations had to custom build the programs they needed for their unique labour markets and workforce. As noted earlier, workplace literacy programs are not very common, but the reality of the literacy levels of the Aboriginal workforce at both diamond mines meant these companies both had to build a skills upgrading system that would meet their particular needs, essentially they created on-site adult learning centres. As one manager aptly noted, "You need to look outside the box. This is not standard training".

### *Role of Government*

Federal and provincial or territorial governments have played roles in the development of many of the essential skills initiatives in the case studies described above. They have had little involvement in directly funding the delivery of the skills upgrading measures presented in our case studies except for some initiatives designed specifically for Aboriginal Canadians (e.g. the Shapotowak Program). However, governments have had an impact through their regulatory functions and through the development of tools that have been tailored for use by the companies studied.

For example, the Government of the Northwest Territories (GNWT) has committed itself to ensuring that its residents will benefit from the exploration and mining of diamonds through the socio-economic agreements it has signed with the diamond companies currently operating in the Northwest Territories (NWT). These contractual agreements have meant that many residents of the NWT will receive employment and business opportunities. These companies have had to focus on upgrading the essential skills of their workforce and local communities to meet their hiring quotas of Aboriginals and "northerners". These organizations have largely had to build the skilled workforce they need to meet their business needs as well as their hiring requirements.

The federal government has also played a role in the promotion of skills upgrading in Canada through its development of the "essential skills" framework and funding the development of the essential skills profiles and generic assessment tools for essential skills (TOWES). However, many stakeholders that we interviewed were unaware of this role of the federal government in developing the infrastructure underlying local initiatives in this area.

### *Adult Educators*

The adult educators are also a key factor in the success of the skills upgrading initiatives noted above. Feedback from students of skills upgrading programs often attributed much of their success in the courses to the strong commitment of the instructors and their passion for teaching. The adult educators who work in the companies are also very dedicated to their students and believe strongly in skills upgrading. The ability of the adult educators to work one-on-one with students and help them develop customized training plans is often cited as a key reason for a successful program.

This study does not examine the selection or hiring practices of the adult educators within the colleges and organizations in this study. However, feedback from various stakeholders suggest that the adult educators clearly play a key role in the success of these skills upgrading initiatives and have a great impact on the successful outcomes of their students.

Again, an organization like the AWES committee can play an important role in keeping adult trainers and educators informed of the latest research and tools to promote essential skills.

### *Measuring Success*

Although the case studies to date provide some anecdotal and qualitative evidence of success, there has been little effort to systematically measure outcomes (such as employment, wages, and health) over time. The skills upgrading initiatives at several of the case studies were relatively new and they had not yet done any formal assessment on their programs.

Until organizations can better demonstrate the impact of skills upgrading initiatives on issues such as productivity, safety, and the bottom line, these initiatives might not be taken seriously in other sectors or businesses. Given that many stakeholders noted the need to constantly show the added-value of their programs to maintain credibility, more efforts to actively measure outcomes of skills upgrading initiatives must be undertaken.

The Canadian Trucking Human Resource Council (CTHRC) TOWES-PD pilot study provides one of the few concrete examples of an attempt to quantitatively measure the link between essential skills and safety performance. This information will then be used by the Council to help further promote essential skills to its members and to develop training curriculum that addresses areas that were identified as needing improvement.

It should be noted that perhaps not all positive outcomes of these skills upgrading initiatives can be measured. Many program participants noted that they felt increased confidence and pride from participation in these programs. Clearly, these effects cannot be measured quantitatively in any simple way.

### *Employee Take-Up of Skills Upgrading Opportunities*

In the case studies presented above, generally only a relatively small number of employees participated in their company's respective skills upgrading initiatives. In other words, not a large percentage of workers are actually participating in these skills upgrading programs although they are generally available to all employees. This does not necessarily suggest that there is low interest in skills upgrading in these workplaces, but rather that skills upgrading initiatives may have a low employee take-up because not all employees need basic skills upgrading. In some cases, however, there was evidence of a lack of awareness of the programs.

The reliance of one-on-one sessions with adult educators and customized training strategies for individual learners (employees) may in fact limit the number of students who can participate in a program at a given time (as has been seen at BHP Billiton). If employee participation increases to a certain point, many of these companies may need to look at increasing the number of adult educators working in their programs. This of course would require additional financial resources.

Low employee participation in these programs may also reflect the fact that for many there is still a stigma associated with literacy and numeracy training. The organizations in our study made a deliberate effort to ensure that their respective programs were not seen as "literacy" or "numeracy" programs per se to avoid any negative connotation.

The skills upgrading initiatives and programs are also relatively new for many of the organizations presented above. Take-up in these programs may increase in the future as employees learn more about these programs, often by word-of-mouth from their colleagues.

### *Reaching Small Business*

Given the fixed costs involved in many of the case studies presented in this chapter, it would likely be more difficult for small and medium-sized enterprises to participate in skills-upgrading initiatives. Many small organizations would likely not have the time or resources to develop skills upgrading assessment tools or programs for their workforce. Sector councils and organizations like AWES, can, by pooling resources, play a role (and have done so in Canada) in mitigating these problems.

Most small and medium sized businesses would not likely be able to afford the direct cost of delivering the training (i.e., the costs of the adult educators). Given how important the adult trainers are to the success of the skills upgrading initiatives presented in this chapter, this will likely be a major issue in implementing skills upgrading initiatives in small and medium sized organizations.

## **6. Conclusions**

This chapter has presented case studies of unique partnerships between employers, training providers, governments, and other key players in developing and promoting skills upgrading tools and programs. The focus of these studies has been geared at skills upgrading of incumbent workers within large companies and also special initiatives geared at upgrading the skills of Aboriginal Canadians in the two case study regions.

These case studies have shown the value of flexible and customizable skills assessment tools and programs that can be tailored to the specific needs of the individual worker and his or her

organization. The essential skills framework has been an important innovation underlying the development of these tools in the companies we studied. In particular, it has brought a focus on linking skill assessments and training programs to materials derived from real workplace contexts. The customization of the basic framework has allowed the organizations we looked at to assess the gap between a worker's skill level and what is needed for a specific job. It has also allowed for skills upgrading to be tailored to the needs of the employers and the employee, so that what is learned is immediately applicable to the job. From our interviews with managers and workers, it is evident that this aspect of the skills upgrading initiatives has been key to the degree of success that they have had so far.

Although few efforts have been made to systematically measure the impact of these skill upgrading programs, feedback from program participants, company managers, and adult educators strongly point to improvement in employee skill levels. These programs are still relatively new for many of these organizations and most plan to more formally assess their initiatives in the future. The lack of specific measures should not discourage future program development but rather should be something incorporated into future program design and assessment.

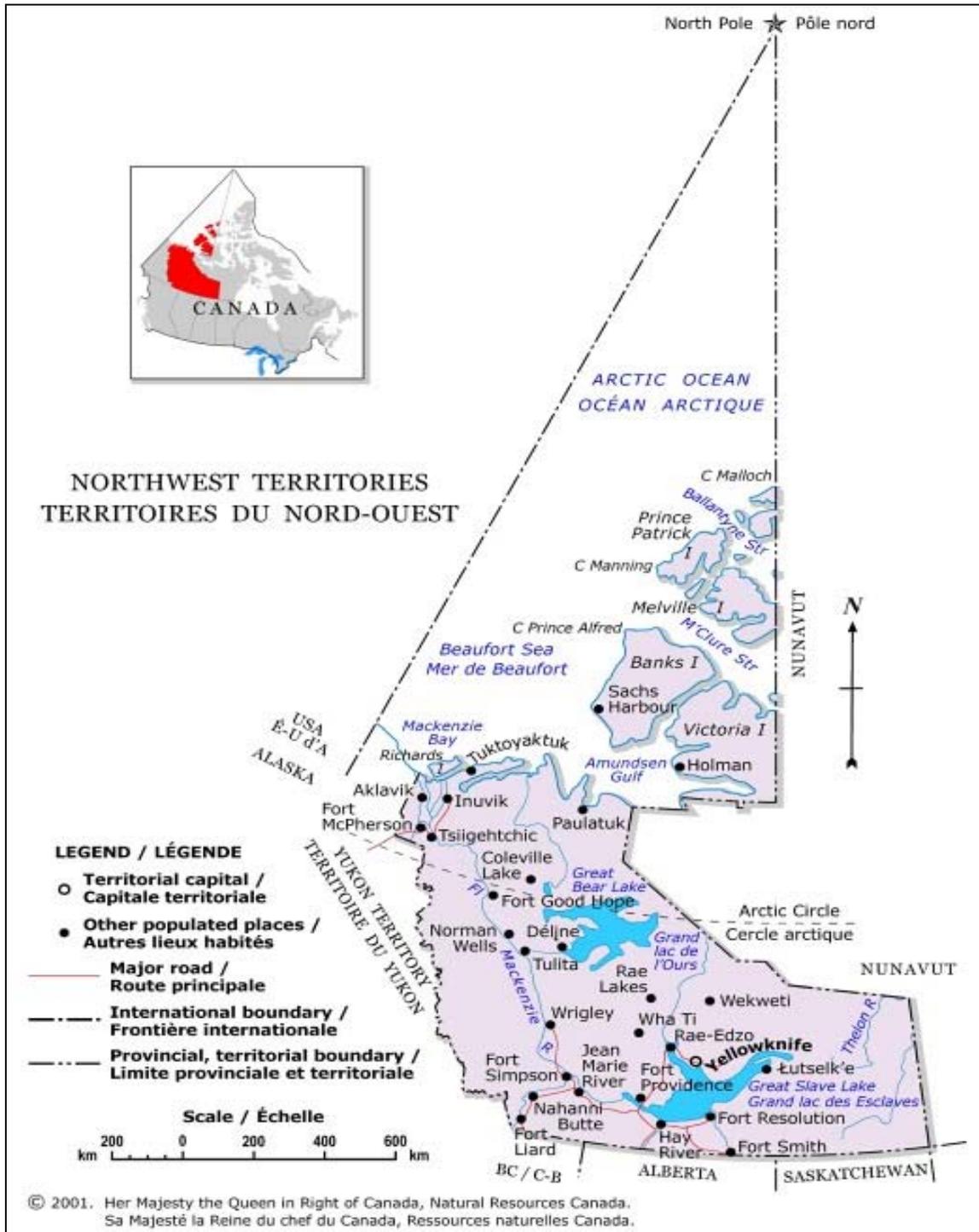
Nevertheless, it is clear that more research is needed on measuring the impact of essential skills initiatives in an organization. More quantitative research is also needed on the scope of skills upgrading initiatives in Canada, particularly with regard to small and medium size companies. While there are data available on training activities in general (and by delivery models such as on-the-job or classroom training), data are lacking on the extent to which skills upgrading initiatives for low-skilled workers are occurring, or how widespread is the use of the essential skills framework in Canada.

It is noteworthy that the private companies and entry level positions in these case studies are not typical organizations or typical entry level positions - a fact that was pointed out in several interviews. The operations of the oil companies and diamond mines in this study each represent multi-million dollar industrial facilities involving huge capital equipment. The entry level positions in these companies can often involve the operation of very expensive equipment, therefore require highly reliable workers, and these positions can be quite highly paid. For example, an entry level position as a heavy equipment operator in the Alberta oilsands can involve driving a truck valued from \$3 to \$5 million dollars (Canadian), and the starting annual salary can be as high as \$80,000 (Canadian), well above the national average.

Despite the unique characteristics of the cases presented above, they do offer valuable insight into the grassroots efforts to develop essential skill assessment tools and upgrading programs by organizations to meet a real business need for a productive and safe workforce.

We would like to thank the individuals and organizations presented in this chapter for their participation in and valuable contribution to this study. Readers are encouraged to find out more information on the skills upgrading initiatives at the various organizations and government agencies by visiting their respective websites which are listed in Appendix C.

## Appendix A – Maps of Northwest Territories



. These maps were taken from The Atlas of Canada. <http://atlas.gc.ca/site/english/index.html>

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## Appendix B – Map of Alberta



These maps were taken from The Atlas of Canada. <http://atlas.gc.ca/site/english/index.html>

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## Appendix C

Website information on organizations and government agencies included in this study.

- Alberta Human Resources and Employment – [www3.gov.ab.ca/hre/](http://www3.gov.ab.ca/hre/)
- Alberta Workplace Essential Skills (AWES) – [www.nald.ca/AWES/](http://www.nald.ca/AWES/)
- Aurora College – [www.auroracollege.nt.ca](http://www.auroracollege.nt.ca)
- BHP Billiton Diamonds Inc. – [www.bhpbilliton.com](http://www.bhpbilliton.com)
- Bow Valley College – [www.bowvalley.ab.ca](http://www.bowvalley.ab.ca)
- Canadian Trucking Human Resources Council – [www.cthrc.com](http://www.cthrc.com)
- Diavik Diamond Mines Inc. – [www.diavik.ca](http://www.diavik.ca)
- Government of the Northwest Territories – Education, Culture, and Employment - <http://www.ece.gov.nt.ca/>
- Human Resources and Skills Development Canada – Essential Skills and Workplace Literacy Initiative - <http://www15.hrdc-drhc.gc.ca/>
- Keyano College – [www.keyano.ca](http://www.keyano.ca)
- Suncor Energy Inc. – [www.suncor.com](http://www.suncor.com)
- Syncrude Canada Ltd. – [www.syncrude.com](http://www.syncrude.com)
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