

Industrial Training Needs

Survey Report

Prepared for the Northern Labour Market
Information Clearinghouse

By

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Northern Labour Market Information Clearinghouse

Introduction

The Northern Labour Market Information Clearinghouse commissioned a survey to provide its post-secondary partners with an indication of training needs of industries employing northern workers.

Based on information currently available in the Northern Labour Market Information Clearinghouse Industrial Training Database, an Industrial Training Needs Survey was constructed to gather industry input on training courses currently available on the database, and additionally, to provide opportunity for industry to comment on how they currently meet their training needs, and what they expect training needs to be in the near future.

Fifty-two companies involved in lumber and forestry, construction and maintenance, utilities, oil and gas, mining, and transportation, were asked by the Clearinghouse to participate in the survey. Thirty-three companies responded to the invitation, for a response rate of 63%. Respondents were primarily human resource directors/managers, plant managers, or owners.

Survey results indicated that industry training needs are extensive and wide-ranging. How these needs are satisfied is equally varied. This report examines how selected industries operating in northern Alberta view current post-secondary training solutions, how industry currently meets its training needs, and what training needs are anticipated in the future. In addition, industry suggestions are offered to the Clearinghouse to assist partners in their deliberations concerning northern industry training markets.

Approach

Information for this report was gathered through a survey instrument which was faxed to fifty-two selected companies. Each potential respondent received a telephone call introducing the nature of the survey, as well as a faxed letter of introduction accompanying the survey tool. Participants were phoned on a weekly basis over a four-week period to encourage their response. Thirty-three per cent (33%) of survey respondents also participated in an "open-ended" telephone interview.

In order to obtain a high response rate, respondents were assured that individual (specific company) responses to items would not be publicized. Therefore, the results of this survey are reported according to sector (mining, oil and gas, construction, etc.) and by company type (small, medium, large).

Limitations of the Study

Participant selection was not random, therefore the results of this survey are not generalizable. However, results are representative of the major types and sizes of the industry based in northern Alberta.

Participant Profile

The industries responding to this survey are categorized as small, medium and large companies. They represent some 9500 employees in northern Alberta.

Figure 1. Participants Represented by Industry Type and Size

<i>N</i> =33* Industries Represented	Number of Participants	Small	Medium	Large
		Fewer than 100 Employees	100 - 500 Employees	More than 500 Employees
Lumber and Forestry	10	0	8	0
Utilities	1	1	0	0
Oil and Gas	13	8	3	2
Mining	2	1	0	1
Construction and Maintenance	6	1	4	0
Transportation	1	0	0	0

* Four companies did not wish to reveal employee number information. This accounts for the discrepancy between number of respondents and industry type in Figure 1.

Industry Expenditure on Training

It can be speculated that industries in northern Alberta spend millions of dollars on training.

Figure 2. Expenditure on Training

<i>N</i> =24			
More than \$10,000	More than \$30,000	More than \$50,000	More than \$100,000
88%	67%	46%	21%

According to the Conference Board of Canada (1996), Canadian companies consider training a priority. The following represents training and development expenditures per employee by sector as reported by the Conference Board of Canada.

Figure 3. Conference Board of Canada Training Dollars Statistics

Industry Sector	Dollar Average/Employee
Oil and Gas	\$1,142
Mining	\$1,093
Transportation/Utilities/Communication	\$1,092
Manufacturing	\$715
Other Sectors	
Finance/Insurance/Real Estate	\$1,113
Services	\$1,103
Health	\$448
Education	\$285
TOTAL (ALL SECTORS)	\$842

Training Areas of Interest and Priority

Figure 4. represents the percentage of total respondents (including those who completed the survey and those interviewed by telephone) who indicated an interest in post-secondary courses currently listed in the Clearinghouse database.

Figure 4. Course Areas of Interest by Industry

<i>N</i> =33 AREA	% of Respondents INTEREST	% of Respondents PRIORITY
Agriculture	12%	0%
Business	73%	36%
Computers	73%	27%
Driver Training	49%	27%
Environmental	9%	3%
Forestry	30%	12%
Health	9%	0%
Heavy Equipment	39%	24%
Literacy	18%	3%
Mechanical	9%	0%
Oil and Gas	18%	15%
Social Services and Forestry	3%	0%
Train the Trainer	15%	0%
Trades	61%	42%
Safety	94%	70%

Current offerings in the areas of business, computers, trades, and safety appeal to the majority of respondents. Trades and safety course offerings are considered a priority.

Figure 5. indicates courses or course groupings in which the majority of respondents indicated interest. (See Appendix A for a detailed breakdown of course groupings).

Figure 5. Training Areas of Most Interest

N=28

Respondent Indicates an Interest
Respondent Indicates a Priority Interest

BUSINESS			BUSINESS		
	I	P		I	P
Communication Skills for the Workplace	68%	25%	Resolving Conflicts at Work	54%	11%
Time Management	61%	18%	Effective Leadership	54%	11%
Enhancing Performance	57%	18%	Team Building	50%	11%
How to Conduct Effective Meetings	57%	11%	Communication Skills (Written)	50%	18%
Interpersonal and Group Leadership	57%	7%			

COMPUTERS			COMPUTERS		
	I	P		I	P
Windows 3.1 and Windows 95	57%	14%			

SAFETY			SAFETY		
	I	P		I	P
WHMIS	57%	46%	Occupational Health and Safety	50%	18%
St. John's Ambulance Standard First Aid	54%	43%			

Additional Training Areas

While the Clearinghouse Industrial Training Database covered most of the training areas companies in northern Alberta currently access from post-secondary institutions, they access, or would like to access training in other areas as well. Some of these include:

power engineering	saw mill operation
pulp and paper	VAC-high pressure
forest products	statistical process control
human resource	instrumentation
wilderness survival	hydraulics
problem solving	operations improvement
PLC-electrical	business literacy

Utilization of Post-Secondary Institution, Private Sector and In-house Services

Industries in northern Alberta receive services from a number of post-secondary institutions. Among those named were: AVCs (Lac La Biche and Lesser Slave Lake), Fairview College, Grande Prairie Regional College, Keyano College, Lakeland College, University of Alberta, BCIT, Athabasca University, University of British Columbia, NAIT and SAIT.

Almost all (97%) companies surveyed currently provide in-house training to employees. Most industries (91%) currently access private sector training and a considerable number (88%) currently utilize post-secondary institutions to satisfy training needs.

When an average is calculated, most (53%) training needs are satisfied in-house, 24% are provided through private sector training companies/consultants and 23% are purchased from post-secondary institutions. However, there is a wide range of this distribution across individual companies.

Figure 6. Industry Training Access

<i>N</i> =28						
	Accessing Post-Secondary	% of Total Training	Accessing Private Sector	% of Total Training	Accessing In-house	% of Total Training
	88%	23%	91%	24%	97%	53%
		(2-80%)*		(5-60%)*		(10-90%)*

* RANGE of Distribution in Determining Mean

While industries access training opportunities from both post-secondary institutions and private sector training companies and consultants, they rely more heavily on institutions to provide computer, mechanical, trades and literacy training. Areas such as driver training, environmental, forestry, health, heavy equipment, oil and gas, and safety are evenly split between private sector training companies/consultants and post-secondary institutions.

Preferred Duration of Training Sessions

The majority (76%) of companies surveyed indicated that most (86%) of their training needs were satisfied through sessions lasting one week or less.

Figure 7. Preferred Duration of Training Sessions

N=28 Training Duration	1 Week or less	2-3 Weeks	1-2 Months	3-5 Months	6-8 Months	9 Months +
% of Companies Indicating Preference	76%	9%	24%	3%	9%	6%
Amount of Total Training Time Companies Currently Spend	86%	8%	29%	10%	17%	7%

Preferred Location of Training

Given the preponderance of in-house training provided by industry, it stands to reason that most (61%) respondents prefer on-site delivery of training. Almost half (46%) indicated that they would also like to access training in the community. While many (31%) respondents are willing to have training occur at a post-secondary institution, they would prefer that the institution be located in the community. Very few (7%) respondents viewed off-site training an inconvenience.

Preferred Mode of Delivery

When companies were asked to prioritize training session delivery mode, the majority (96%) indicated that face-to-face instruction was preferred, followed by computer-assisted instruction, videoconferencing, and print-based correspondence.

Figure 8. Delivery Mode Preferences

N=28	Face-to-Face	Computer Assisted	Print- Based	Audio Conference	Video Conference	Internet
First preference	96%	10%	5%	5%	5%	5%
Second Preference	4%	65%	15%	11%	11%	0%
Third Preference	0%	15%	30%	5%	37%	0%

Future Trends

The majority (59%) of respondents reported that process skills training will continue into the foreseeable future. There will be an increased need to provide performance management, interpersonal, and general business skills training. Most companies (55%) reported that health and safety training will be a priority over the next 3-5 years. Another 46% emphasized that trades, trades updating, and equipment operations training will be required. Twenty-three percent of surveyed companies suggested a continued need for industry specific and advanced computer skills training.

Industry Suggestions for Improvement of Post-Secondary Training Services

In general, industries surveyed are satisfied with the service they receive from post-secondary institutions named in this report. They do, however, offer some observations and suggestions for improvement in organization, course development and delivery, and in partnership:

Organization

- Monitor and improve current and future programs by: screening out professional students; improving criteria for success--spending the money on students who are sincere; providing equal opportunity/service fee for applicants; establishing faster job placement (shorter training periods); facilitating more practice-based experiences for students in the field.

Course Development

- Increase the number, flexibility and cost effectiveness of courses that can be delivered to the industry site.
- While a good deal of industry training is developed and delivered in-house, there appears to be a definite industry need for post-secondary services. Therefore, current offerings should be continued, but monitored and improved.

Course Delivery

- Make more industry training available to students prior to their entering the work force (i.e. co-op programs).
- Continue to offer courses locally to minimize travel expenses; bring more training to the community.
- Investigate and work toward providing on-site trades instruction at affordable costs.

- Where possible, increase the use of distance learning delivered on-site.
- Increase the availability of simplified (user friendly) tools to access training especially for remote and/or smaller communities.
- Market and deliver courses more effectively as corporate clients will go to whoever offers the best product at the best price.
- Make available an industry course list (i.e. cross-institutional calendar). Human resources directors do not have the time to look through several institutions' calendars.

Partnership

- Increase networking with industry to better determine industry needs.
- While in some instances the local community college has been more than willing to work with "us" through partnership and strategic alliances, more institutions need to do the same, that is, develop technical training programs targeted to growth areas.
- Increase strategic alliances and collaboration with other institutions (primarily NAIT and SAIT) to provide more convenient access to training programs, especially trades. Build an alliance with existing programs to avoid "reinventing the wheel".
- Work together to more cost-effectively develop and deliver courses. There appears to be some confusion why northern institutions are "so competitive", especially those in close proximity to each other.

In Summary

Some of the large industries reported enjoying a very co-operative and collaborative working relationship with institutions in their geographic area. However, many mid- to small-sized companies reported that institutions could better serve their needs by offering a more coordinated approach to course and program delivery. The implication is that there appears to be a need for increased communication between industry and the post-secondary institutions. Dialog could focus on appropriate course offerings, course development and modification, and course delivery.

Contacts

COMPANY	CONTACT	PHONE
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Appendix A

Survey Results (% of Respondents Indicating Interest and Priority Interest for Specific Courses Contained in the Clearinghouse Database)

N=28					
AGRICULTURE			AGRICULTURE		
	I	P		I	P
AI Cattle	-	-	Beef Production	-	-
Calf Disease Seminar	-	-	Crop Input Training	-	-
Greenspace (Grounds Maintenance)	-	-	Pesticide Applicator	4%	-
Stock Dog	-	-	Water Well Drilling and Ground-Water	4%	-
Weed Identification	11%	-			
BUSINESS			BUSINESS		
	I	P		I	P
Assertiveness Skills	43%	11%	Basic Bookkeeping	14%	4%
Coaching for Commitment	43%	14%	Communication Skills (Written)	50%	18%
Communication Skills for the Workplace	68%	25%	Customer Service, Level I	14%	-
Dealing with Difficult People	46%	14%	Effective Leadership	54%	11%
Enhancing Performance	57%	18%	Forum for International Trade Training	4%	-
How to Conduct Effective Meetings	57%	11%	Integrated Budgeting Skills	21%	4%
Interpersonal and Group Leadership	57%	7%	Management Development Workshop	29%	14%
Organizational Behavior	39%	7%	Resolving Conflicts at Work	54%	11%
Simply Accounting (Bedford)	14%	-	Small Business Training Centre	-	-
Stress Management	39%	14%	Team Building	50%	11%
Time Management	61%	18%	Train the Trainer	32%	4%
Whitespace Management (Tourism)					
COMPUTERS			COMPUTERS		
	I	P		I	P
AutoCAD for Surveyors	4%	-	Business Computer Foundations	7%	4%
Computerized Accounting Skills	14%	4%	DOS	7%	-
Introduction to Computers	36%	11%	Advanced Computer Training	32%	14%
Introductory Database	21%	4%	Advanced Database	21%	4%
Introductory Spreadsheet	43%	14%	Advanced Spreadsheet	39%	7%
Introductory Word Processing	39%	21%	Advanced Word Processing	36%	7%
Introduction to Presentation Software	18%	4%	Advanced Presentation Software	14%	-
Internet Training	14%	-	Introduction to Global Positioning Sys	11%	4%
Software/Hardware Evaluation	7%	4%	Windows 3.1 and Windows 95	57%	14%
DRIVER TRAINING			DRIVER TRAINING		
	I	P		I	P
Air Brake "Q" Endorsement	18%	11%	Air Brakes	18%	7%
General oilfield Driver Improvement	14%	15%	Log Haul	14%	7%
Professional Drivers Improvement	21%	11%	School Bus Class II, with "S" Endorsement	4%	-
Truck Transport - Class I, Class II	4%	4%			

ENVIRONMENTAL			ENVIRONMENTAL		
	I	P		I	P
Pesticide Applicator Certificate Tutorial	7%	4%	Pesticide Dispenser (Class 1 Retail) Certi	4%	4%
FORESTRY			FORESTRY		
	I	P		I	P
ATV Safety	32%	4%	Regeneration Survey Certificate	25%	4%
Road and Cutback Layout	25%	4%	Scaling	29%	11%
Scarifier Operation	25%	4%	Silviculture Supervision Skills	18%	11%
Silviculture Surveying Skills	25%	4%			
HEALTH			HEALTH		
	I	P		I	P
Food Safety	7%	-	Practical Nurse Refresher	4%	-
HEAVY EQUIPMENT			HEAVY EQUIPMENT		
	I	P		I	P
Basic Surveying	7%	-	Crawler Tractor Training	11%	4%
Equipment Fundamentals	18%	11%	Grader Operator Upgrading	11%	4%
Loader Operation Training	32%	21%	Motor Scraper	4%	-
Road Building	14%	7%	Road Widening and Culvert Installation	11%	4%
LITERACY			LITERACY		
	I	P		I	P
Effective Reading in Context	25%	7%			
MECHANICAL			MECHANICAL		
	I	P		I	P
Antilock Brake	-	-	Gas Conversion/Propane	-	-
Metal Polishing	4%	-	Refrigeration/Air Conditioning	-	-
Vehicle Detailing	4%	-			
OIL AND GAS			OIL AND GAS		
	I	P		I	P
First Line Supervisor's Blowout Prevention	11%	11%	Gas process operations - Level I	14%	7%
Oilfield Operators Fuse Replacement	-	7%	Well Service Blowout Prevention	14%	14%
SOCIAL SERVICES AND FORESTRY			SOCIAL SERVICES AND FORESTRY		
	I	P		I	P
Log Home Building	-	-			
TRAIN THE TRAINER			TRAIN THE TRAINER		
	I	P		I	P
Instructional techniques Workshops	21%	4%		-	-
TRADES			TRADES		
	I	P		I	P
Pre-Employment - Trades	14%	7%	Electrical Trades	46%	36%
Millwright Trades	46%	36%	Welding Trades	43%	32%

SAFETY			SAFETY		
	I	P		I	P
ATV Safety	18%	11%	Accident Control level I, Level II	32%	18%
Air Brake Endorsement	14%	4%	Automatic Fire Sprinklers	7%	4%
Basic Welding	29%	4%	Bear Aware	11%	14%
Building Codes Inspector	11%	-	CPR	29%	25%
CPR Basic Rescuer "C"	21%	21%	Chainsaw safety	32%	25%
Confined Space Entry, Level I, Level II	43%	43%	Cross Connection Control	-	-
Emergency First Aid	39%	36%	Foodsafe	7%	4%
H2S Alive	36%	36%	Occupational Health and Safety	50%	18%
Occupational Hygiene II	7%	4%	Oilfield Haulers	7%	7%
Safety Codes Officer Training	7%	4%	St. John's Ambulance Emergency Fir	18%	11%
St. John's Ambulance Emergency First	39%	25%	St. John's Ambulance Emergency Firs	21%	11%
St. John's Ambulance Standard First Aid	54%	43%	Transpiration of Dangerous Goods	36%	32%
Traffic Control	-	-	Wilderness First Aid	14%	11%
WHMIS	57%	46%	Initial Attack Crew Member Course (Fire Fighting Safety)	14%	14%