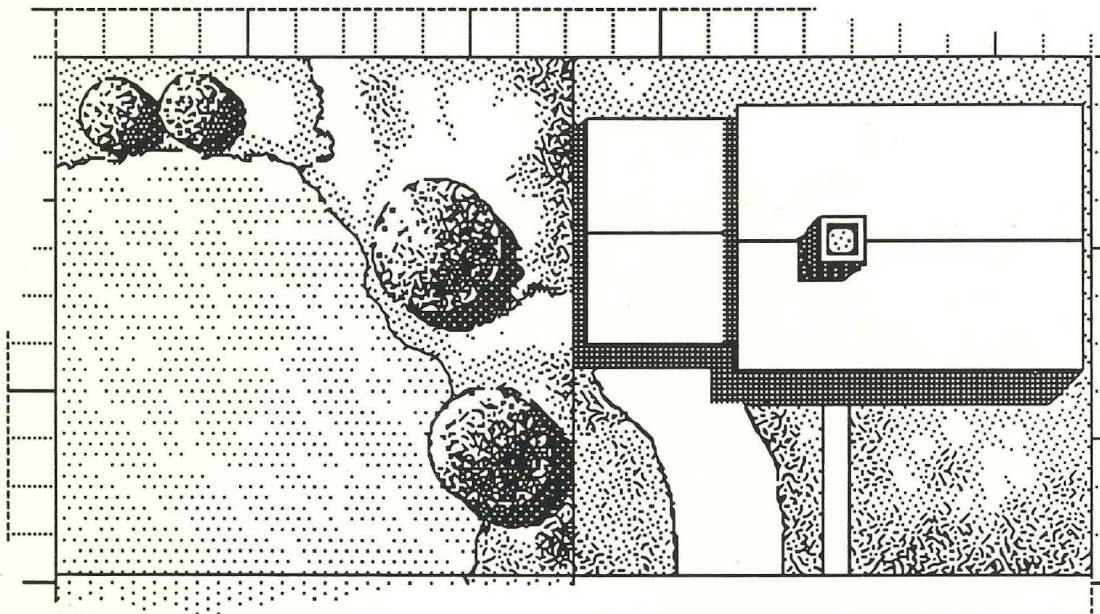


**NWT CONSTRUCTION INDUSTRY
NEEDS ASSESSMENT
AND
LABOUR MARKET REVIEW**



**Prepared by
Arctic College
and
Richard Bushey Planning**

**for the
N.W.T. CONSTRUCTION ASSOCIATION**

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TO: MEMBERS OF THE NWT CONSTRUCTION ASSOCIATION

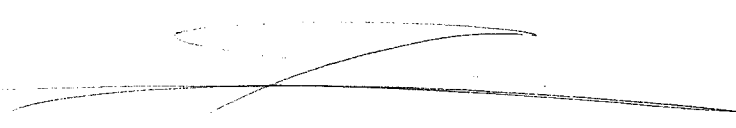
**RE: NWT CONSTRUCTION INDUSTRY NEEDS ASSESSMENT AND
LABOUR MARKET REVIEW**

The Education Committee of the NWT Construction Association identified the following problems that are contributing to labour shortages in the construction industry: a high number of young adults with low education and trade skills; a lack of understanding of trades opportunities by educators; and the complex and inadequate training programs directed at the construction industry.

The purpose of this research, undertaken by Richard Bushey Planning with Arctic College and funded by Employment & Immigration Canada, was to assess the state of the construction industry in the Northwest Territories and to address the shortages of semi-skilled and skilled workers.

This study conducted across the Northwest Territories has detailed our concerns and has provided a clear and concise analysis of what can be done to improve matters.

Anyone interested in the construction industry, trades education, and the economic and social development of the Northwest Territories will benefit from reading this document. The Association welcomes your comments.



Fred Leonardis
Chairman, Education Committee
NWT Construction Association

October, 1990

**NWT CONSTRUCTION INDUSTRY
NEEDS ASSESSMENT
AND
LABOUR MARKET REVIEW**



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THE NWT CONSTRUCTION INDUSTRY NEEDS ASSESSMENT AND LABOUR MARKET REVIEW

EXECUTIVE SUMMARY AND RECOMMENDATIONS

The Northwest Territories Construction industry employs nearly 2,000 people and is the largest employer of trades people in the NWT. However the majority of these jobs, especially the skilled positions, go to workers from southern Canada.

NWT Construction industry employers report shortages of skilled and semi-skilled workers, including electricians, plumbers, gasfitters, carpenters, tinsmiths and oil burner mechanics. Turnover rates are also high and there is a requirement for semi-skilled persons with basic construction skills and a strong work ethic.

Trades employers, Canada Employment, and local Chambers of Commerce project an increase in construction trades jobs in the Northwest Territories and in Canada into the next decade.

The greatest number of potential workers and new entrants into the labour force in the NWT are aboriginal people and women. The most significant impediment for aboriginal people to enter trades occupations is the overall lower levels of educational achievement. For women, there are social and cultural attitudes which also exists as barriers for involvement in construction industry trades.

To deal with the shortage of labour resources in the NWT and to target skill development assistance, we recommend that the new federal government job training assistance initiatives to co-ordinate training policy, standards, and funding be implemented in the NWT, as follows.

The Labour Force Development Strategy for the NWT should promote more long term and stronger Industry-Education partnerships by developing local Training Boards.

Local Training Boards

Local Training Boards could be developed in each area served by a college campus, where construction industry representatives, educators, and local Canada Employment staff in partnership would:

- [1] assess the local labour market in order to identify where training is needed;**
- [2] decide what training is needed and negotiate the development and purchase of the service; and**
- [3] provide the counseling support services to ensure the effectiveness of the training.**

Comprehensive Vocational Education

The partnership could develop more direct co-operation between high schools and Colleges in offering, especially in the regional centers of the NWT, a more comprehensive vocational route to grade twelve matriculation, in the following manner.

[1] The shops and faculty at the colleges could be utilized to deliver grades eleven and twelve vocational training.

[2] The Academic Up-grading departments of Arctic College could teach reading, writing and mathematical skills, while the Trades departments would concentrate on plumbing, carpentry, welding, and electrical, for example.

[3] The Counseling staff could offer appropriate career and life skills counseling to students.

[4] Upon graduation, students could challenge the first year trades exam in their area of specialization, and if successful, be granted advanced standing.

Job Entry and Introductory Courses

We propose that the local Industry-Training Boards introduce and promote experimental "job entry" programs directed at people who cannot meet the academic requirements for apprenticeship, or an introductory trades course at a college.

We would also recommend that the Local Boards consider the continuation and expansion of courses, such as the Arctic College Introductory Carpentry Courses, and that additional Introductory Courses be offered in the plumbing and heating field at locations, such as Iqaluit, Rankin Inlet and Cambridge Bay, for example, to meet current industry requirements.

Construction Industry Business Development

The Government of the NWT could space the timing of the awarding and start-up of government sponsored projects throughout the year to recognize the delays caused by sealift, barge, and winter road transportation. A more balanced approach to development would allow for more cost-effective tendering and utilisation of the local labour supply.

We would also propose that GNWT procedures, policies and methods of payment on contracts be improved and that the Northern Incentive policy (BIP) be revised to reflect the unique financing and businesses costs associated with the NWT Construction industry.

It would also be beneficial to the industry to employ a Co-ordinator who could carry out and follow through the initiatives of the Construction Association across the Northwest Territories, including the coordination of local Industry Training Boards.

An NWT Construction Association Electronic Bulletin Board system could assist in the establishment of distance education as a viable teaching and learning tool in the construction industry.



1.1 Introduction

The Education Committee of the NWT Construction Association, under the Chairmanship of Mr. Fred Leonardis, recently reported to the Minister of Education of the Northwest Territories that there are shortages in semi-skilled and skilled workers in the construction industry.

The Committee identified a number of problem areas in the NWT that may contribute to these labour shortages:

- [1] a high number of young adults with low education and trade skills;
- [2] a lack of understanding of trades opportunities by educators; and
- [3] complex and inadequate training assistance programs, especially those directed at small contracting businesses in the construction industry.

Construction industry is the largest employer of trades people.

The construction industry is the the third largest employer in the NWT, employing nearly 2,000 persons, and is the largest employer of trades people in the NWT. Consequently, the Committee noted that it is essential that a trained and adequate supply of local semi-skilled and skilled workers be made available. The Education Committee also believes that by attracting more Northern residents to the building industry, Northern contractors would be strengthened and the economic development of the North would benefit.

In addition, a number of ideas and proposals have been put forward to improve training and to increase the number of Northerners working in the construction industry.

Some have suggested that the funding of training programs should be shifted in emphasis from government agencies to private industry, in order to reduce the high cost of training to industry and to encourage more local employment.

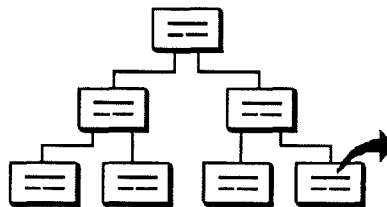
Others have suggested that entry level wages should be subsidised to reduce the cost of training to the employer and to increase the level of wages of potential apprentices. This would maintain the competitiveness of Northern businesses and compensate the trainee at a higher rate.

Another view is that assistance to the Construction industry in program co-ordination is necessary because many businesses are either unaware of, or are prevented from taking advantage of existing training assistance programs, due to their complexity and time restraints, "red tape".

In order to answer these questions and to look into depth concerning these issues, the NWT Construction Association selected Arctic College and Richard Bushey Planning to conduct a Training Needs Assessment in the Northwest Territories.

Richard Bushey of Richard Bushey Planning, with the assistance of Brian Flanagan a Trades instructor from Arctic College in Fort Smith, travelled to several communities across the NWT in the summer of 1990 to interview construction industry employers and employees, educators, and field representatives of Employment and Immigration Canada for this study.

In addition, Lutra and Associates assisted in compiling data from a number of recent studies undertaken on Training Needs Assessment in the NWT and the construction industry.



Is there a shortage of skilled and semi-skilled workers in construction trades occupations in the Northwest Territories?

In our assessment of the Labour Force in the NWT, 29% of the Construction industry employers reported shortages of Journeyman electricians and trade shortages of plumbers, gasfitters, carpenters, tinsmiths and oilburner mechanics.

In Yellowknife, approximately 50% of the Construction industry employers reporting stated that it was difficult to find skilled and semi-skilled employees. Trades employers throughout the NWT concur that they have difficulty staffing trades positions.

Employers also reported that the turnover rates of employees in the Construction industry were high. There were also reports of shortages of semi-skilled employees and those persons with basic construction skills and a strong work ethic.

Will there continue to be a demand for skilled and semi-skilled workers in construction trades occupations in the NWT?

Canada Employment and Immigration Canada has projected that, based upon increases in job openings, pipefitters, plumbers, electricians, insulators and carpenters are among the fastest growing occupations in Canada. NWT Trades employers expect that in the 1990's decade trades jobs will increase, especially in the areas of carpentry related jobs. Should a mega-project, such as a Mackenzie Valley pipeline occur, the demand for many construction trades will accelerate.

The Baffin Region Community Futures Report, June, 1990 notes that "although there is a significant number of jobs in the construction industry, most of the jobs go to southern (imported) labour.... The Inuit who are employed on construction sites are employed at entry level positions, such as labourers and carpenters' helpers. To illustrate the absence of Inuit involvement in the construction industry, it should be noted that no Inuit certified carpenter earned a dollar of the 13 million dollars of new construction in the town of Iqaluit during 1988."

Where do the workers in the Construction industry in the Northwest Territories come from?

Since the Northwest Territories is heavily dependent on immigrant labour, NWT employers compete for trades workers with other regions of Canada. Of the almost 2,000 persons employed in the construction trades in the Northwest Territories, less than half were born in the NWT. The greater majority of northern residents who are employed in the trades are retained in semi-skilled positions.

In a recent survey conducted by the trades department of the Nunatta Campus of Arctic College, in Iqaluit, it was estimated that 70% to 85% of the construction labour force were not long term residents of the Eastern Arctic, even though the construction industry is the second largest employer in the Baffin region, employing 18% of the workforce with an estimated 10 million dollar annual payroll.

Has the N.W.T. Apprenticeship Program had an impact in producing skilled trades people for the NWT Labour Force?

Since the inception of the program in 1965 the N.W.T. Apprenticeship Program has supplied almost 2,000 certified trades people to the NWT labour force, approximately 75 persons a year. Approximately 350 full-time apprentices are involved in the NWT program and two-thirds are apprentices in construction trades. However, the demand for trade apprentices is greater than the availability of apprentices and the resources needed to train them.

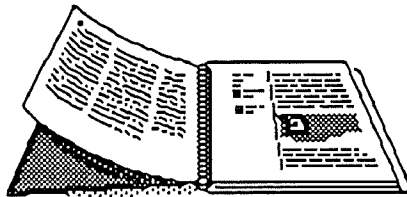
Is there a pool of semi-skilled construction labourers and helpers that NWT Construction industry employers can draw from?

There is a potential pool of semi-skilled construction labourers and helpers who are seeking employment in the NWT. They are in the majority those persons with less than a Grade 9 education. A Grade 8 level of education can be considered to be a minimum requirement for persons employed as semi-skilled and skilled construction labourers and helpers.

The last census report [1986] also reveals that the largest segment of the NWT population over 15 years of age, approximately 11,580 persons, have less than a Grade 9 level of education. It is also not surprising that the labour force activity by education level statistics reveal that NWT unemployment was highest among residents who had completed less than Grade 9, some 33% of those seeking employment.

The Special Committee of the NWT Legislative Assembly report on the Northern Economy [SCONE] in October 1989 also revealed that the functional illiteracy rate in English amongst aboriginal people in the NWT with less than Grade 9 education is about 74%. The NWT has the highest illiteracy rate in the whole of Canada.

Consequently, the greatest number of potential workers over 15 years of age, who could serve as a pool for semi-skilled construction labourers and helpers in the construction industry, are also the majority of the work force with the lowest levels of education.



1.2 A Case Study reveals the impact of labour shortages.

A recent study done by Richard Bushey Planning for the NWT Housing Corporation reveals the extent of the problem of a lack of qualified workers and the impact this situation has on the development of the construction industry and the economy in the Northwest Territories.

Since 1973 the NWT Housing Corporation has been one of the major developers of residential construction in nearly all the communities of the NWT, and especially in the more remote locations. Over the last several years it has planned the development of over 300 new units per year, in addition to rehabilitation and replacement of its extensive social housing stock. The contracts are awarded by public tender.

In 1986 the Government of the Northwest Territories developed a policy implemented by the NWT Housing Corporation to shift from Supply, Ship and Erect [SSE] contracting to Labour-Only contracts, where the Housing Corporation supplies the material and a contract is awarded to erect the building. The intent of this policy was to increase the number of local Northern general and sub-contractors building Public Housing and to encourage the employment of local workers in the communities where the buildings were being erected. Several significant events took place.

The number of Northern registered and southern based general contractor companies building Public Housing have been reduced from 1986, the last year when both SSE and Labour-Only contracting took place.

GENERAL CONTRACTORS BUILDING PUBLIC HOUSING ACROSS THE NWT

<u>Construction Year</u>	<u>Number of Companies</u>	<u>Number of Northern Companies</u>
1984	6	2
1985	18	11
1986	20	12
1987	11	8
1988	14	9

* 1984 contracting was awarded on a SSE basis only; 1985-86 contracting included SSE and Labour-Only/ 1987-88 contracting was awarded for Labour-Only.

In 1986 the list of contractors awarded Public Housing contracts consisted of 12 companies located in the North and registered under the NWT Business Incentive Policy. In 1987 the number of Northern general contractors was 8. In 1988, the number of Northern contractors was 9.

This shift to Labour-Only contracting has led to a reduction in the number of Northern and southern based general contractors participating in building Public Housing. This was not the intent of the policy.

Since the requirement for Labour-Only contracting was implemented, by policy directive November 1986, the registered Northern companies share of the dollar volume of Public Housing work has increased.

NORTHERN CONTRACTOR SHARE OF PUBLIC HOUSING CONTRACT WORK

<u>Year</u>	<u> Number of North. Contractors </u>	<u>% of \$ Volume of work</u>
1984	2	17.6% of \$12,282,672= \$2,166,564
1985	11	28.6% of \$13,821,596= \$3,958,640
1986	12	43.5% of \$16,847,194= \$7,332,116
1987	8	84.5% of \$ 3,211,382= \$2,712,838
1988	9	80.6% of \$ 8,112,591= \$6,539,452

* totals are reported in constant 1986 dollars

In 1984 and 1985 the Northern contractor dollar volume share of Public Housing work was 17.6% and 28.6%, respectively. In 1986, the last year when both SSE and Labour-Only contracting took place, the Northern contractor dollar volume share of Public Housing work was 43.5%. In 1987, when separate Labour-Only contracting was utilized throughout the NWT, the Northern contractor dollar volume share of Public Housing work rose to 84.5%.

Two Northern contractors were awarded 52% of the northern-sourced Public Housing work.

In 1988 the Northern contractor share of the dollar volume of Public Housing separate Labour-Only contract work was 80.6%. As in 1987, the same two Northern contractors were awarded a substantial portion of the 1988 share of work, 71%

This increase in the overall proportion of Public Housing contracting being awarded to Northern registered general contractors has been accompanied by a shift in the concentration of the dollar volume of work towards two Northern general contractors. These contractors have specialized in recruiting labour from outside the NWT to make-up a substantial part of the skilled workers in their crews. They have not sub-contracted to Northern firms.

After reviewing the 1988 NWT Business Directory listing of construction companies and contractors in the communities, analyzing the NWT Housing Corporation Contract Records and Public Housing Project Files, and interviewing construction industry representatives and others, we were unable to find any new registered Northern painting, drywall, plumbing, electrical and mechanical sub-contractors that have been developed in those community locations where Labour-Only contracts have been awarded to erect Public Housing.

The reason is that few contractors hired local/Northern sub-contractors. The majority of carpentry, painting, drywall, plumbing, electrical and mechanical services were provided from the manpower of the contractor crews. Most contractor crews are directed by a Superintendent and/or Journeyman and include skilled workers from the south and the remaining crew made-up of Northerners and local workers, who are classified as being an apprentice, carpenter helper, labourer or cook.

The wage rate for carpenters, plumbers and electricians averaged \$16.00 per hour, in 1988, as recorded on Contractor Manpower reports. The wage rate for Northern hires, carpenter helpers, labourers and cooks ranged from a high of \$12.00 per hour to a low of \$6.00 per hour. The average rate of pay was \$8.00 per hour.

The personnel and size of Northern and southern-based contractor work crews can vary. In most cases, the work crews of both Northern and southern-based contractors were made-up of skilled southern-based personnel and lesser skilled Northern residents.

Due primarily to the classification of workers by skill level, the hourly wage rate paid to Northern workers was reported to be, on average, 50% of the wage rate that is paid to southern-based workers.

The fact that Public Housing contracts were awarded under Supply, -Ship and Erect [SSE] or Labour-Only was not a factor affecting local employment levels in the communities where the projects were built.

A review of official reported levels of labour force activity reveals no evidence indicating an overall, measurable reduction in the level of unemployment in communities across the NWT attributable to Public Housing construction taking place.

There appears to be no consistent, measurable direct linkage between the awarding of Public Housing construction contracts, under either Supply, Ship and Erect or Labour-Only, and the unemployment rate in a community where the project is being built.

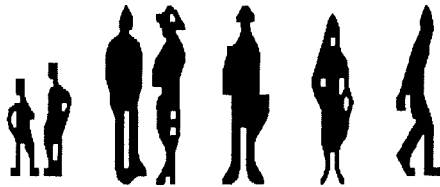
Levels of Social Assistance payments to those classified as "unemployed but able" was also analyzed. Monthly Social Assistance payments were compiled in communities for periods before, during and after substantial projects in order to determine whether or not significant projects had an effect on the reduction of social assistance for the "Unemployed but Able".

There was also no evidence indicating that levels of Social Assistance payments to those considered "unemployed but able" had declined in those communities which had significant Public Housing construction projects built.

The Government of the NWT policy to shift the contracting of Public Housing to Labour-Only contracting did not achieve the goals intended: an increase in the number of small construction contractors and sub-contractors; and an increase and development of a skilled local labour supply for the construction industry in the NWT.

The contractors who were successful in tendering and completing projects relied on work crews made-up of a majority of efficient, skilled workers from outside of the NWT supplemented with local labourers and semi-skilled workers.

What can be done to deal with the shortage of skilled and semi-skilled workers in the construction industry in the Northwest Territories?



1.3 Profile of NWT Labour Force Trends in the 1990's

In order to address the issue of shortages in the labour force in the Construction industry, we should also recognize the fact that the majority of new members entering the NWT labour force in the past decade were women and aboriginal northerners - a trend which is expected to continue into the 1990's.

Currently the number of women in the construction industry are not great, less than 2%, while women make-up 42% of the NWT labour force. Amongst NWT apprentices, less than 3% are women.

The reasons for the lack of women in the trades includes the fact that the trades are considered a non-traditional occupation for women and that many women report there are social and cultural attitudes that exists as barriers to the involvement of women in the construction industry.

One of the impediments for aboriginal people to enter trades is the overall lower levels of educational achievement. Most apprenticeships, for example, require a grade 10 education level of achievement, and 33% of the working age population of the NWT have less than Grade 9. In addition, many aboriginal people are working in English as a second language and find the technical or in-school training component in the Apprenticeship Program challenging.

Another reported barrier to attracting Northerners to trades occupations is that it is difficult for private and small business to compete financially in wages and benefits with government or the mining industry in attracting qualified employees. In addition, there is also a lack of interest among high school students towards "blue-collar" type occupations.

All of the above factors discourage women, aboriginal, and young persons from entering Construction industry occupations in the NWT and generate more dependence on imported skilled and semi-skilled workers.

2.1 Trades Training

A substantial portion of funds directed at the national labour-market development and national competitiveness has been initiated at the federal government level. Job training programs, including those directed at the construction industry, have come about to a great extent from policies on employment from Ottawa and channelled through Territorial agencies, such as the NWT Department of Education and Arctic College.

Giles Gherson of The Financial Times of Canada, August 6, 1990, pointed out that "everyone agrees Canada's training policies have big gaps, as a shortage of resources forces authorities to target skills assistance at the hard-core unemployed." In addition, analysts agree that attention has also to be placed on upgrading the skills of the people who are employed and those who have been recently unemployed.

Currently the federal government is considering an overhaul of the job training system with a major devolution of power to the private sector, by setting up an independent National Training Board, co-chaired by business and labour. Acting as a Directorate it would take over much of the training policy machinery, establish nationwide apprenticeship standards, and submit annual job-training spending plans to the minister and Parliament.

Provincial/Territorial training Boards will feed into the National Training Board to ensure coordination of policy, training standards and funding. In this decentralized model there will be local training boards set up in each of Canada's unemployment-insurance districts. These local boards, composed of employer, labour, and community college representatives, would develop training plans to meet changing labour-market needs.

This initiative is promising and should improve program design and implementation. We can relate this national initiative to the Northwest Territories by proposing a number of activities and initiatives to develop and strengthen the construction industry.



2.2 Trades Training in the Northwest Territories

Historically, Arctic College with six campuses and learning centres across the NWT has provided both pre-employment, cooperative and trades theory training. Thebacha campus in Fort Smith has been the site of most of this training and it has excellent facilities for educating mechanics, carpenters, plumbers, welders, electricians and housing maintenance workers. The training has been of the traditional apprenticeship design with the curriculum imported from southern Canada, mainly Alberta.

Traditional apprenticeship theory training satisfies the needs of the Apprenticeship Board in that they have a standard by which all students can be measured. However, members of the NWT Construction industry interviewed for this study have reported that this training does not necessarily satisfy the needs of the construction industry in ensuring that the theory training is applicable in practice.

In many instances southern values and standards cannot be utilized in the North, especially with regard to building design and construction techniques. Peculiar Northern conditions, such as continuous and discontinuous permafrost and severe climactic conditions give rise to specific solutions, such as utilidor services and suspended basement building designs.

More appropriate Northern situations, like the widespread use of oil fired furnaces, water pressure systems, and water and sewage holding tanks, should all be included in the training of Northern workers - considerations that are often overlooked in training due to the importing of southern based curriculum.

Construction industry employers who have reported criticisms of theory training in the trades feel frustrated because they are not able to exert any direct influence on the course curriculums. They may be members of several trades advisory committees, but they assert that these bodies do not provide an effective nor immediate feedback for formative evaluation of training programs.

There are a number of remedies to this situation.

2.3 Industry-Education Partnerships

When the federal government announced in the spring of 1989 a new Labour Force Development Strategy for the 1990's, it promoted the development of Task Force initiatives conducted under the auspices of the Canadian Labour Market and Productivity Centre.

One of the principal themes that emerged from the Task Force consultation process was the necessity to develop stronger Industry-Education partnerships. The goals of this partnership would be to raise the educational level of the current work force and plan for future training needs. By developing a partnership, traditional barriers would be overcome and a new interaction would be developed where the responsibility for success would rest with training institutions and industry.

Arctic College develops and markets courses and training programs which are often specialized to meet a clients needs, such as the mining industry [customized training]. What we are advocating is a promotion and acceleration in this approach of greater responsibility for program implementation of construction industry training to the local/regional level where the greatest amount of practical knowledge and experience rests.

Local Training Boards could be developed in each area served by a College campus where construction industry representatives, educators, and local Canada Employment staff in partnership could:

- [1] assess the local labour market in order to identify where training is needed;**
- [2] decide what training is needed and negotiate the development and purchase of the service,**
- [3] provide the counseling support services to ensure the effectiveness of the training.**

This partnership relationship does not exclude labour representatives, and local educational institutions, such as high schools, nor does it exclude the Apprenticeship Branch.

Employers report of Journeyman trade shortages in the Northwest Territories and across Canada. In the North the situation is compounded by an approximate 29% turn-over rate of staff.

Since its inception in 1965 the N.W.T. Apprenticeship Program has supplied almost 2,000 certified trades people to the N.W.T. Labour Force. About 63% of these have been in the construction trades.

The number of active apprentices in construction industry related fields registered with the N.W.T. Apprenticeship and Certification Board, February, 1990, are concentrated in four trades: Carpenter [90]; Housing Maintainer [63]; Electrician [40]; and Plumber [40].

Approximately 75% of apprentices work in the private sector, with trades such as Housing Maintainer heavily concentrated with local Housing Associations and Authorities which are located in nearly all communities of the NWT.

The Apprenticeship Training Subsidy Program assists northern businesses in employing apprentices by offsetting costs associated with their employment.

Of the registered Journeyman in the N.W.T., the greatest numbers in construction industry related fields are concentrated in seven trades: Housing Maintainer [192]; Electrician [129]; Gasfitter [123]; Carpenter [99]; Welder [90]; Plumber [74]; and Oil Burner Mechanic [50].

The Apprenticeship Branch controls the school curriculum for trades. By forming a local partnership with industry, current and relevant training accommodations to trades curriculum could be more easily introduced.

A partnership arrangement could also introduce new approaches for the construction industry to hire workers. Employers could select prospective workers, including apprentices, by identifying selected local high school students. Individuals could be assessed, counselled, and provided with an individualized work and training program.

This approach may correct the reoccurring situation where people at the first year level of apprenticeship are unable to progress without first receiving academic upgrading. This causes great inefficiency and discouragement because the front-end entry levels are plugged and other persons then become restricted from being indentured.

By developing a partnership relationship the construction industry would be able to select more capable candidates of all backgrounds and the flow of apprentices would be more consistent.

The partnership could develop more direct co-operation between high schools and Arctic College in offering, especially in the regional centers, a more comprehensive vocational route to grade twelve matriculation, in the following manner:

[1] The shops and faculty at the colleges could be utilized to deliver grades eleven and twelve vocational training.

[2] The Academic Up-grading departments could teach reading, writing and mathematical skills, while the Trades departments would concentrate on plumbing, carpentry, welding, and electrical, for example.

[3] The Counseling staff could offer appropriate career and life skills counseling.

[4] Upon graduation, students could challenge the first year trades exam in their area of specialization, and if successful, be granted advanced standing.

As a result, a student could successfully acquire the high school diploma and be proceeding on a chosen career path. The construction industry employers would benefit by acquiring a person with advanced training and skill acquisition.

2.4 Job Entry/ Introductory Programs.

Employers in the plumbing and heating business, electrical and general contracting indicated to us in our field study that there is a requirement for trained workers at the job entry level.

Interviews with trades workers and construction company owners indicate a strong interest in developing additional "job entry" programs directed at people who cannot meet the academic requirements for apprenticeship or an introductory trades course at a college.

There is also a requirement for graduates from courses such as the Introductory Carpentry Course and that additional Introductory courses should be offered in the plumbing and heating field at locations such as Iqaluit, Rankin Inlet and Cambridge Bay.

The Nunatta Campus in Iqaluit and the Thebacha Campus in Fort Smith offer a number of Introductory Carpentry Programs. A proposal for a "Preparatory Carpentry Operation" for the Inuvik Education Society was completed in May, 1990 also.

These courses are intended to prepare students for "entry-level" employment in the carpentry trade. Graduates of the program receive an Arctic College Carpentry Certificate for completion of the theory and practical practice and are qualified as a carpenter's assistant. Graduates may be eligible to write the first year apprenticeship entrance exam.

Admission requirements for applicants is that they must be 17 years of age and have completed Grade 9. Applicants must also write a College Entrance Assessment Test and attain a past mark of 50%.

A more basic "entry-level" course was offered on an experimental basis in the summer of 1990 at the Yellowknife Campus of Arctic College in conjunction with CEIC and the NWT Construction Association where a Construction Worker course was offered. This course offered unemployed people a basic understanding of the industry, the construction process, the application of safe construction practices, how to operate and maintain small equipment, and how to assist in formwork and shop activities.

Both classroom and work site activities took place for about dozen applicants. Job placement with a construction company after the six week training period followed. This course prepares people for a basic job entry level on a construction site. Several participants went on to full time employment after the job placement program and one person has applied for an apprenticeship.

It was indicated to us by employers and educators that the long term solution for meeting local labour shortages in the NWT construction industry is to encourage young persons to stay in school, but in the meantime there are several generations of men and women in the Northwest Territories who want to work; however they cannot meet the entrance requirements for training.

The Broughton Island Development Corporation response to this predicament is to propose that "in-community" courses be held that teach practical and theory training, using whatever construction activities that are occurring in the community as the "classroom".

This approach has the benefit that students would not have the financial expense or the social difficulties of leaving their families and home communities. If wages were associated with the training, the money would stay in the community. The community would also gain trained and experienced workers who would be available for work, even though that work could be substantially of a seasonal nature and concentrated around the construction building season.

It was also proposed that the Government of the NWT recognize this type of training by developing a "certificate of accomplishment". In addition, it was proposed that the Government could require companies receiving contracts to recognize this training and offer employment to those who have the "certificate" and apply for jobs.

Although this approach has organizational difficulties, it does reflect the growing widespread interest in small communities in the Northwest Territories of a need to respond to labour and training skills shortages. These initiatives are also an attempt by small communities to fulfil local employment and economic development requirements by meeting employer needs in the construction industry.





2.5 Construction Industry Business Development

The Construction industry is the third largest contributor, approximately 14%, to the Gross Domestic Product of the Northwest Territories. Only Public Administration [Government], at 28%, and Mining, at 24%, exceed in significance to the annual growth of the territorial economy.

Although the Construction industry in the NWT has several large contractors, in most cases the industry is dominated by small businesses who face a number of difficulties.

Compared to southern competitors, NWT Construction industry businesses must provide higher wage and benefit packages. They are often required to provide or subsidise housing for employees, provide cost of living allowances, and a vacation subsidy. These costs are reflected in product and service pricing which must remain competitive.

The costs of overhead and inventory are also expensive, especially to those businesses that are located in communities in the NWT not serviced by road. Northern businesses who fail to prevent stock shortages often face premium shipping rates in order to supply the servicing and product demand of clients.

Few Northern construction industry businesses have access to advanced technology and transportation supply lines which allow for materials and supplies to be scheduled to a point where waiting time on the job approaches zero.

Advances in sophisticated management practices, technology, new products, and product application have resulted in decreases in southern construction industry costs. The cost to introduce new technologies and applications, as well as a scarcity of skilled technical and trades people, in the North has deterred and restricted many Northern construction industry businesses from embracing new technology, especially in the small communities that dominate the NWT.

The SCONE, Special Committee on the Northern Economy, community public hearings held in 1989 across the NWT reported organizational and financing difficulties in the construction industry.

Construction businesses report that the timing of the awarding and start-up of government sponsored construction projects is not planned properly. They should be spaced throughout the year to make for a more balanced approach to development and to allow for more cost-effective tendering and utilisation of the labour supply.

Many small construction companies complained that the method of payment on government contract work is slow. A contractor from Fort Providence explains: "When a small business has three or four government contracts to complete all at the same time, and progress payments are submitted, the waiting period is so long to receive a cheque that you find that you have to shut down some of your work, or all of it, until some money comes in".

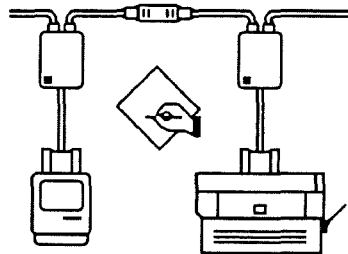
With regard to the GNWT bidding process, in the Eastern and Central Arctic regions, especially, contractors complain that the GNWT Northern Incentive Policy is inadequate to compete with southern firms. Bid bonding costs for many companies is also a drain on cash flow and many communities lack financial services from a bank or credit union which places a great hardship and costly financing problems on many businesses. Consequently a number of recommendations are proposed to enhance the equalisation of opportunity for Northern construction industry businesses.

The Government of the NWT could space the timing of the awarding and start-up of government sponsored projects throughout the year to make for a more balanced approach to development and to allow for more cost-effective tendering and utilisation of the labour supply.

The GNWT method of payment on contracts needs to be improved and the Northern Incentive policy (BIP) revised to reflect the unique financing and businesses costs associated with the NWT Construction industry.

Since the NWT Construction Association is a voluntary organization relying on the efforts of members, it would be beneficial to employ a Co-ordinator who could follow through these initiatives and co-ordinate these activities across the Northwest Territories. The Co-ordinator could also engage in the collective marketing of the Construction industry and its capacity to serve economic development needs. An important consideration in the NWT which is a large and developing region of Canada.

The Coordinator could also start-up and develop an Electronic Bulletin Board system which would allow construction workers, students, and apprentices, employers, and instructors to communicate, coordinate resources, and share special interests with each other across the North inexpensively and efficiently. In the face of widespread technological change throughout the construction industry, education and training must be perceived as an ongoing and integral part of the work process.



An NWT Construction industry Electronic Bulletin Board system could assist in the establishment of distance education as a viable teaching and learning tool in the construction industry.

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