NATIVE EMPLOYMENT PATTERNS IN ALBERTA'S ATHABASCA OIL SANDS REGION

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ABSTRACT

The Canadian Institute for Research was commissioned in April 1978, by the Government of the Province of Alberta, Department of the Environment, to undertake a study designed to generate research problems and questions pertinent to a study of native employment patterns in the Athabasca Oil Sands region. This study included the identification, review, and analysis of existing data. It focused on information derived from: (1) existing literature on native employment and training programs across Canada and in the local area; (2) interviews conducted with key persons in industry, government, and training institutions; and (3) file data of employers, training institutions, and employment-related institutions in the area. From these sources, patterns and trends in native employment and employment training were identified; gaps and ambiguities about employment patterns and employment training programs were cited, and recommendations for future research forwarded.

Research methods and findings from all data collection sources are described fully in this document. The reports are organized by data source. Each separate report contains summaries of findings from that source. Summary statements of findings, together with recommendations for further research, are presented in the final chapter, in the Digested Report, and the Executive Summary.

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This study is the result of the interest and involvement of numerous people not specifically mentioned in the report; however, without such assistance the research could not have been accomplished.

This research project HS 40.1 was funded by the Alberta Oil Sands Environmental Research Program, a joint Alberta-Canada research program established to fund, direct, and co-ordinate environmental research in the Athabasca Oil Sands area of north-eastern Alberta (see Figure 1).

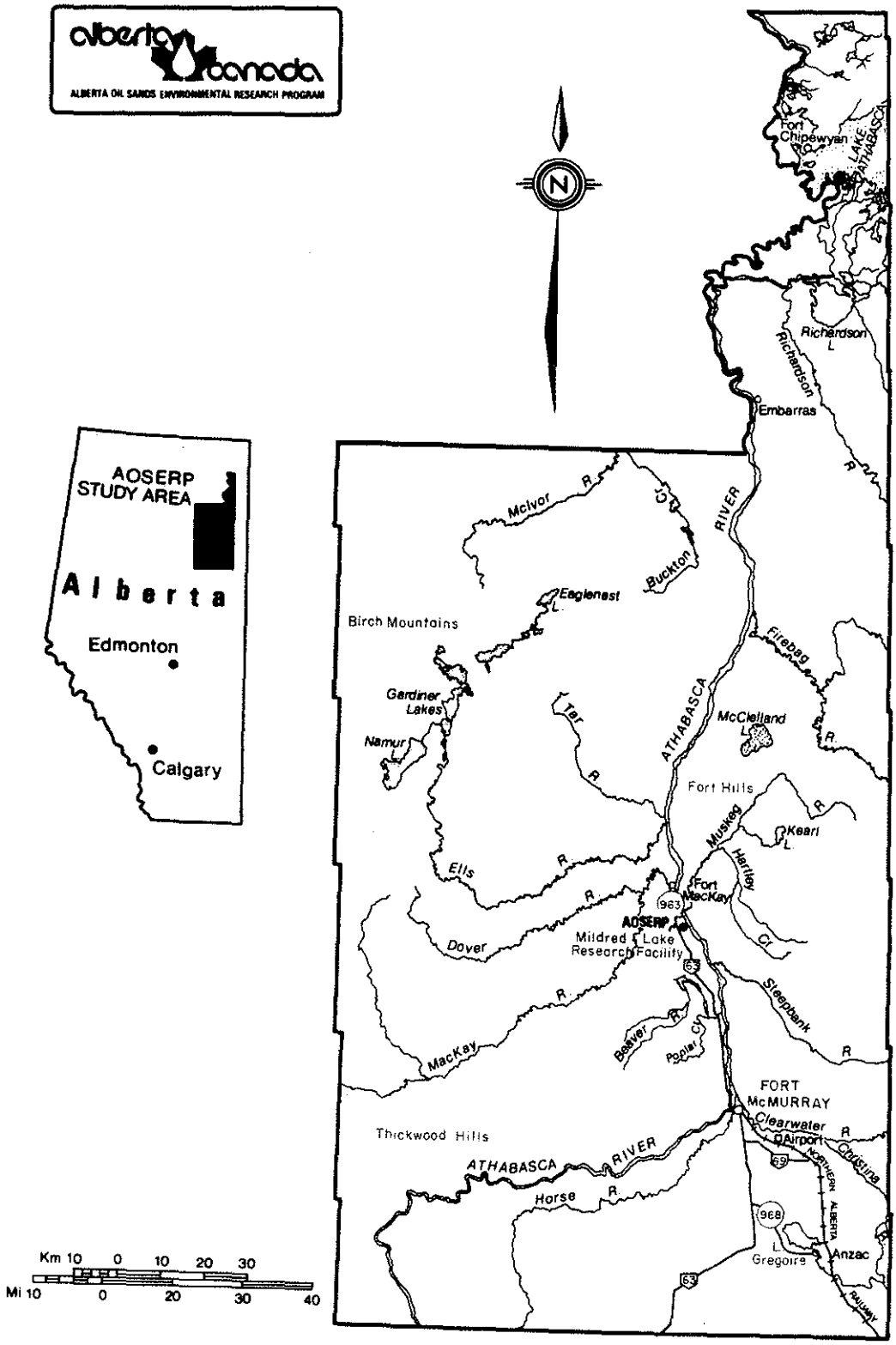


Figure 1. Map of the AOSERP Study Area.

1. INTRODUCTION

In April 1978, the Canadian Institute for Research (CIR) was contracted by the Government of the Province of Alberta, Department of the Environment, to conduct a study of native employment patterns in the Athabasca Oil Sands region. This study was designed as a problem definition stage. In other words, the study was not designed to answer specific questions or to test particular hypotheses, rather it was designed to discover which questions needed to be asked and to suggest what kinds of researchable problems were apparent for a study of native employment patterns in the Athabasca Oil Sands region.

This study was not intended to be a general labour survey of the native labour force in the Athabasca Oil Sands region. Such a study would be desirable but was not within the scope of this study. It was recognized by officials of the Alberta Oil Sands Environmental Research Program (AOSERP) and CIR that there was need for a preliminary study to determine major local concerns and research priorities before field work was engaged in in the area. Therefore, the problem definition stage was comprised of three major tasks: (1) literature review; (2) preliminary interviews with personnel from industries, native organizations, and relevant government agencies in the Athabasca Oil Sands region; and (3) file analysis. These three tasks were undertaken to generate research problems and questions pertinent to a study of native employment patterns in the oil sands region. It is emphasized that the study did not intend to give quantitative data or to determine the native employment patterns. All the data were taken from existing sources which were used to reveal local trends which could aid in formulating further research projects to investigate more specific issues of concern regarding native employment patterns in the Athabasca Oil Sands region.

1.1 REPORT FORMAT

Since this report is intended for various audiences, an attempt has been made to organize the findings in a way which

should serve the needs of each of the reading audiences. For those interested specifically in the research problems and questions, the Executive Summary provides a synopsis of the recommendations for future research. The Digested Report includes the extrapolation of the information from the data sources and the recommendations emanating from this information. Finally, the Amplified Report contains the description, identification, review, assessment, and analysis of the data sources. Each section is separated in an effort to make the report more useful.

2. EXECUTIVE SUMMARY

This report summarizes the major findings and recommendations of the study on native employment patterns in the Athabasca Oil Sands region. This is a sensitive area of research and has demanded the co-operation of various groups in the oil sands region. Such a comprehensive area of research has resulted in the creation of a study aimed at problem definition. Therefore, the findings reveal more questions than answers and the recommendations are in terms of areas for further research.

2.1 BACKGROUND OF THE STUDY

The study was contracted to the Canadian Institute for Research, by the Alberta Government, Department of the Environment, in April 1978. According to the terms of reference, the term "native employment patterns" includes employment, underemployment, and unemployment among Treaty Indians, non-Treaty Indians, and Metis people residing and/or working in the oil sands region.

Data collection procedures were designed to generate research questions. Three data sources were identified: (1) literature review and document analysis; (2) preliminary interviews with personnel from industries, native organizations and relevant government agencies in the Athabasca Oil Sands region; and (3) file analysis.

2.2 MAJOR FINDINGS

The findings are listed according to data source.

2.2.1 Findings from the Literature Review and Analysis of Local Documents

2.2.1.1 General literature findings. The following trends were identified in the general literature:

1. There has been a move from descriptive accounts of native unemployment to complex analytical studies of barriers and facilitators;

2. Solutions for native unemployment are seen as multi-faceted whereas, in early studies, providing jobs was seen as the single solution;
3. Many presuppositions previously held about native employment (e.g., Indians prefer short-term, casual, seasonal employment) are being challenged by evidence derived directly from native people;
4. Unilateral solutions involving changes for the native people solely are being replaced by demands for bilateral solutions requiring accommodations from both the native people and the wider society;
5. For the past fifteen years there has been a shift from on-reserve employment to off-reserve employment;
6. Many studies show that specific labels (such as "native") cloud significant differences within the group; region, educational level, closeness to the traditional way of life, etc. all affect the individual's view of employment; and
7. Higher educational levels among young native people have raised expectations. This has created a group of native people with more opportunities than their fathers, but also more tension and frustration as the opportunities open do not live up to their expectations.

2.2.1.2 Local Document Findings. The following trends were observed in the available local documents, and are summarized:

1. There is growing concern with the effects of the oil sand development on local communities;
2. Studies of the local communities have revealed the basic cultural, social, and economic aspects of

these communities from the perspective of the outside researcher, not from the view of the community residents;

3. Most studies have been descriptive in nature. They have not analyzed the problems involved with native employment;
4. Most theoretical discussions have drawn their assumptions from data gathered from outside the region;
5. Employment statistics are conflicting and contradictory and vary to such an extent that they appear highly suspect;
6. The literature reviewed here suggests that employers and researchers are aware of some of the problems involved in native employment. However, the examination of these problems in native employment in the oil sands region has been spotty and speculative; and
7. Most studies are based on assumptions about native people which have not been tested and may not be relevant to the oil sands area.

2.2.2 Findings from the Preliminary Interviews

From the preliminary interviews the following general conclusions were drawn:

1. Survey techniques would be inappropriate instruments for a study of native employment patterns;
2. A study of native employment patterns which disregarded other aspects of the social and economic life of the area would be inadvisable;
3. A study of native employment patterns which disregards the employment patterns of other employees in the

area gives a distorted picture of native employees;

4. The native population cannot be viewed as homogeneous. Internal divisions must be taken into consideration;
5. Research must proceed slowly so as to allay fears and suspicions among the local people and to gain their confidence; and
6. Looking at individuals as employees is not enough, research should include the employee as community member, tribal member, and family member.

2.2.3 Findings from the File Analysis

The following were the apparent patterns and/or trends in employment and training programs identified through the file analysis:

1. Native trainees and native employee/clients have lower educational levels than their non-native counterparts;
2. Union membership is not important in terms of either native, or non-natives trainees, or employee/clients;
3. Lay-offs affect non-natives more than natives;
4. The yearly income of the native sample is considerably lower than the yearly income of the non-native sample;
5. Both natives and non-natives desire permanent, full-time employment;
6. The majority of both natives and non-natives prefers construction work;
7. The majority of both native and non-native trainees and employee/clients has no formal training beyond school;
8. The most frequent reasons for leaving a job are retraining, personal, choice, and relocation for both natives and non-natives;

9. Non-natives have a higher incidence of steady employment than do the natives;
10. Significant problems for both groups are lack of skills and family concerns;
11. Natives have a significantly lower successful completion rate in training programs than do non-natives;
12. The majority of native trainees are enrolled in two pre-vocational programs, i.e., Industrial Workers' Course and Academic Upgrading while the non-native are enrolled in all the various subject areas; and
13. Absenteeism is the major reason for the termination of a course by the native sample.

2.3 RECOMMENDATIONS FOR FUTURE RESEARCH

1. An indentification of the jobs available in the oil sands presently, and over the next five years, with specification of the actual level of general education and particular skills required to perform the tasks which comprise each job, should be undertaken. Such an endeavour could aid policy makers in planning manpower needs, housing needs, and training needs. The result could be an information and retrieval system for current and projected information on employment and training.
2. A comprehensive examination of the general education levels and skills available within the employable native population needs to be made. Such information, added to the information and retrieval bank, would assure that native people were considered for jobs. If they did not have the appropriate skills, suitable training programs could be evolved.
3. The community aspirations of the native people within the Athabasca oil sands region should be assessed.

The consideration of alternative developments within local communities should be examined in light of spin-offs from the oil sands developments and traditional small-scale enterprises. (What priorities do the native people in the local communities have with regard to employment and training in the area?)

4. Existing training programs should be evaluated. (Since native people in our sample had high absenteeism and low retention and completion rates, do the training programs meet the needs of native people? Does the available training fit the needs of employers?)
5. A thorough assessment should be made of the migration and relocation patterns of the native people residing and/or working in the Athabasca oil sands region. This would include: investigating where people come from, where they live when they arrive, what ties are maintained with their home communities, what effects these outmigrations have on local communities, and whether people migrate permanently, or temporarily.
6. The economic implications of employment and training to the aboriginal population could be estimated and compared to the economic implications for the non-native people in the area. (How does the cost of living out of the local community compare to the cost of living at home? What is the comparison between the wages on the job and the training allowance? Is there actually a loss of income for a native worker?)
7. The effects of inplant procedures such as shift work, or union, or company regulations on the individual native worker should be examined.

8. The job preferences of the native young people in the oil sands region should be identified and correlated with the counselling services at schools. Since the majority of the prospective employees are under 30 (with many under 20 years of age) and unskilled, programs need to be predicated on the interests and needs of this target group.
9. The effects of native employment on native communities should be considered. Questions such as: Are the natural leaders of the community drawn away from the community into wage employment? Is there a loss of the potential for alternative development within the community? Is there an increase in the number of school drop-outs? need to be addressed.
10. Future researchers must decide whether to study the native population alone or do a comparative study of the native population and non-native population to assess the possible differences in employment patterns between native and non-native populations. The question still remains as to which approach would be most profitable in showing native employment patterns in the Athabasca Oil Sands region.

3. DIGESTED REPORT

3.1 INTRODUCTION

In April 1978, the Canadian Institute for Research was contracted by the Government of the Province of Alberta, the Department of the Environment, to conduct a study of native employment patterns in the Athabasca Oil Sands region. According to the terms of reference, the term "native employment patterns" includes employment, underemployment and unemployment among the Treaty Indians, non-Treaty Indians and Metis people residing and/or working in the Athabasca Oil Sands region.

To facilitate the examination of such a comprehensive topic, the initial phase of the study was designated as a problem definition stage in which existing data relevant to native employment patterns were identified, reviewed, and assessed in an effort to develop researchable problems within the broad topic area. To establish the breadth and depth of research in the area, and to discover pertinent questions on issues related to native employment patterns, a review of literature and an analysis of general materials addressing issues of native employment and employment/training for native people across North America were undertaken. The review and analysis were supplemented by a review and analysis of pertinent materials specific to the Athabasca Oil Sands region. The documents from the local area were analyzed using the categories found within the general literature. Trends and patterns in native employment and/or training programs observed in the general literature and the local documents were recorded. Gaps in the information presented on native employment programs or native employment were identified from both the general literature and the local documents. The ambiguities inherent in both sets of information were noted as well.

To determine specific issues relevant to native employment patterns in the Athabasca Oil Sands region, preliminary

fact-finding interviews were held with persons from Native Outreach, employment-related institutions, training institutions, government officials, and employers in the region.

To define the native employment patterns in the Athabasca oil sands region, an identification, review, and assessment of the records of manpower agencies, training institutions, and major employers in the region were undertaken.

The findings of the three different data sources are outlined in the following pages. A complete description of the findings is found in the Amplified Report. An Executive Summary that follows is presented under two headings: (1) native employment patterns; and (2) native training/employment programs. The data from the three data sources pertinent to each of these two topics are included. This report concludes with the presentation of recommendations for further research.

3.2 NATIVE EMPLOYMENT PATTERNS

The research thus far has served to demonstrate the difficulties inherent in the study of native employment patterns and the need for further research. The issues of employment, underemployment, and unemployment are in themselves complex. However, when the cultural variable is added, the issues are further complicated. It is evident that the three data sources herein reported have only begun to address the topic.

The general review of literature has revealed an attempt by researchers to unravel the complex tangle of barriers to the employment of native people. Early authors were satisfied to paint the gloomy picture of native unemployment and to hypothesize that job creation was the singular solution. Through attempts at job creation and subsequent studies, it has been demonstrated that this was a naive assumption. Within the literature reviewed, there were over 150 specific barriers to native employment identified. These barriers have been itemized and summarized under the following seven broad topics: (1) economic barriers; (2) education and training barriers; (3) political barriers; (4) social and

cultural barriers; (5) health barriers; (6) recruitment techniques; and (7) on-the-job barriers. However, by presenting the diverse barriers in such an academic format, their impact is reduced; for, in reality, they are not segmented and separate; they are inter-related. When they impinge on an unemployed person, they have a cumulative and devastating effect which cannot be adequately described in such a presentation.

The literature has offered few solutions for those seeking answers to native employment. Some tentative proposals have been forwarded which address specific barriers. However, since this report is concerned with the problem definition aspect of the research, the specific barriers and facilitators will not be examined. For their elaboration, the reader is directed to the Amplified Report.

The most significant finding in the general literature review was that many presuppositions about the employment of native people are not challenged in the research. It would appear that any research into native employment patterns must take into account the need to question the underlying assumptions of the research itself, of employment agencies, of training programs, and of employers.

One of the most prevalent assumptions made in studies of native employment is that all native people are alike. Therefore, if a study states that native people in Arizona like to make baskets, all native people should like to make baskets. All people labelled "native" are expected to respond in the same way. However, recent studies (Farnsworth 1976; Duran and Duran 1973; Born 1970; Lampe 1974) on native employment patterns have pointed out that research which fails to take into account the regional, educational, tribal, generational, and other distinctions within the native population will emerge with meaningless global statements which do not represent any particular native people. This point was emphasized in the preliminary interviews by people from the community. They suggested that significant divisions in the native communities in the Athabasca Oil Sands region were: status, tribe, generation, and kin, and that theses distinctions could have

important influences on any research into native employment patterns.

A second, perhaps fallacious, assumption that has been made is that, because of their history, native people prefer outdoor, part-time, seasonal jobs. As a result of this assumption, young natives as well as adults are channelled into occupations which tend to be menial and low paying. The file data showed that the native employees overwhelmingly wanted permanent full-time employment. Studies in the Yukon (Lampe 1974) and among students in the Northwest Territories (Smith 1974) have shown this as well. Instead of making an assumption as to the aspirations of the native people in the Athabasca Oil Sands region, it would seem that this is a researchable question which can only be answered by asking the native people themselves.

A third testable assumption that has been revealed in the literature is that increased training for native people will decrease native unemployment. It is purported by some authors that native employment training has become big business but that native unemployment has not been significantly affected (Purley 1970). It is further maintained that the skills may be provided and obtained and employment still not be guaranteed. The relationship between training and employment could be examined in the Athabasca Oil Sands region.

The assumption that permanent relocation of the employee and his/her family solves the employment problems is under attack. Lloyd (1974) showed in a study of twelve relocation projects that none of the families remained in the south. They either went back home or to some other northern community. The Province of Manitoba Manpower Group (1975), Hobart (1976), and Nogas (1976) all concur. Relocation is recommended only for the select few--the young, the educated, and the aggressive. Alternative methods of semi-permanent relocation appear to have better success. The migration and settlement patterns of native people in the Athabasca Oil Sands

need to be studied to determine who migrates, how long they stay, and how do they prefer to live in their new community.

Another assumption which is called into question in the research is that more formal education for native people leads to better job opportunities (Province of Manitoba 1975; Rogers 1969; and Wolfart 1971). The argument is forwarded that governments have pushed native people to acquire more education to assure employment when recent sociological research has questioned the existence of such a relationship (Roberts, 1974). It is further stated that, with the increased educational levels, native people have acquired higher aspirations which have not been met by the society at large (Deprez and Sigurdson 1969). The file data revealed that the majority of native employees and native trainees had less than ten years of successful formal education. However, from the file data it was not possible to compare the aspirations or actual employment of the better educated and the less educated. Such a study would also require data on the educational levels needed for entry into the various jobs in the Athabasca Oil Sands region and the numbers of native people employed in each of the job classifications.

The last crucial assumption made about native employment which is being challenged is that native unemployment is the fault of the native people themselves (Elias 1975; Heinemann 1975). In the literature there has been a shift from the onus being put on the native people (blaming the victim) to a questioning of the responsibility of governments and employers in the creation of the context of native unemployment. This has led to the distinction in the literature between unilateral solutions (effecting changes in the native person to increase his/her employability) and bilateral solutions (necessitating changes in both the native person and the larger society as well). To test this assumption, it would be necessary to consider the jobs available in the Athabasca Oil Sands region, the specific skills and actual general educational level required to perform each of these jobs, and the skills and the educational levels available in the local native work force. Furthermore, government and company regulations with regard to

hiring practices and qualifications need to be examined in terms of their influence on native employment patterns.

Beyond the testing of assumptions about native employment, the data sources strongly suggest that future research on native employment patterns in the oil sands region should take into account the context in which the native employee exists. Both the literature and the interviews support the contention that a study which views a man as an employee only is too limited. As one study demonstrated, what a man does on the job affects his behavior off of the job, and what a man does off of the job affects him on the job (Heinemann 1975). It is suggested that future research should not only study the employee as community member, tribal member and family member, but should consider other aspects of the social and economic life in the Athabasca Oil Sands region as well.

A study of the context of native employment is complicated by the fact that the local research into employment opportunities is sketchy. Statistical information is limited and often contradictory. Even census data in northern native communities are open to question. The literature revealed no comprehensive examination of economic opportunities for the area's native people. Studies of native employees' life styles, community involvement, or family commitment do not exist. Questions related to migration, permanent relocation, and semi-permanent relocation have not been considered seriously in the local documents.

The file data provided some demographic information on native employee/clients. From the files, it was learned that most of the employee/clients are single males under 30 years of age. Over 25 percent of these are under 20. The majority of the native employee/clients have less than 10 years of formal schooling and have had no formal training beyond school. However, such data are employment oriented and fail to provide contextual background. Most files do not include: ancestry, Indian status, original residence, or home address, etc. Other data sources would

be needed to view the native employee in regard to other aspects of his/her life.

Methodological questions were addressed in the literature and in the preliminary interviews. It was emphatically stated by many of those interviewed that survey techniques were inappropriate for research in the Athabasca Oil Sands region. It was further stated that, since people in the Athabasca Oil Sands region were mistrustful of researchers, any research effort would have to be undertaken slowly and cautiously, grounded on a foundation of mutual trust.

The literature supports the interviewees' opinions on research. Liebow (1967) states that there is a need for contextual studies of the unemployed rather than studies in which the unemployed are treated as deviations from the norm. He admits an uneasiness with data gathered about the unemployed by interview or questionnaire. He maintains that any research must be considered exploratory, not laden with presuppositions of what is or is not relevant.

Finally, the literature (Lampe 1974; Province of Manitoba 1975; Deprez and Sigurdson 1969) supports the contention that any future research on native employment patterns should include native researchers. To arrive at data representative of the attitudes, aspirations, and experiences of native people in the Athabasca Oil Sands region, it would be imperative that native people be involved in all phases of the research.

3.3 NATIVE TRAINING/EMPLOYMENT PROGRAMS

The study of native employment patterns leads directly to an examination of native training for employment programs. As in the case of the literature pertinent to native employment patterns, the review of literature on native training programs revealed evidence that many of the basic assumptions about training native people for employment are in question. It is instructive to consider these assumptions which have been stated or have been implicit in the research, but have not been tested.

The first assumption challenged is the belief that native people require pre-employment training. The usefulness of such training has been criticized by some of the studies. It has been maintained by some researchers that pre-employment programs may in fact discourage native people from going to work in industry (Deprez and Sigurdson 1969). It is hypothesized that such training programs present an unrealistic, classroom simulation of a work situation dealing with potential problems which, in reality, may never occur. Therefore, it is contended that training programs need to be job specific and be initiated only after employment has begun. Whether or not pre-employment programs are necessary for native employment in the oil sands industries needs to be seriously considered.

An assumption underlying pre-employment programs is the notion that native people lack the attitudes and knowledge to work in an industrial setting. This supposition on the part of non-natives has led to the "life skills" approach. In the preliminary interviews and the literature, there are mixed reactions to the "life skills" approach. Some people (Morrison 1975) claim that the implication that one culture is superior to another is inherent in such an approach and therefore the approach should be abandoned. Others (Co-West 1976; La Rusiac 1970; Wall 1975) see the purpose of "life skills" courses simply to teach practical responses to an unfamiliar environment. In the local documents, "life skills" courses are referred to as courses on "coping skills" (Co-West 1976). The relationship between such training and employment in the oil sands region needs to be studied more closely.

Most of the native trainees identified in the file data were enrolled in either the Industrial Workers' Course or in academic upgrading. Concern has been expressed as to the relationship between pre-employment programs like the Industrial Workers' Course and employment. Similarly the literature questions the assumption that more basic adult education leads to more or better employment opportunities. Such question as "Are the subjects job related?" and

"Does an academic upgrading course lead to recognition of credentials by employer?" need to be asked.

One researcher (Elias 1975) has claimed that the aspect of formal education most applicable to the industrial setting is the conditioning in following rules and regulations without question, the acceptance of routine, and the enduring of authority structures which many years in the educational system tend to inculcate into people. He has asserted, however, that this attitudinal and behavioural conditioning does not occur in short-term, adult education classes. An analysis of the content and outcomes of the adult upgrading program, in relation to the employment opportunities and qualifications required for jobs in the Athabasca Oil Sands region, would serve to demonstrate the usefulness of such training for the local native population.

Nearly 50 percent of native trainees in this sample did not successfully complete their training programs, while almost 80 percent of the non-native sample did. Since training is assumed by many to be necessary for employment, what effect does the low success rate have on the chances of native people for employment? Do unsuccessful trainees get jobs as readily as successful trainees? If so, the intent of the training programs should be questioned. If not, then the training programs' success with native students should be carefully assessed. The frequently recorded reason for termination was absenteeism. The issue of absenteeism has been addressed in the literature. One study (Padfield and Williams 1973) has stated that absenteeism is a useful device of terminating individuals since it is easily quantified. It suggests that the enumeration of absences often hides such significant problems as the relevance of the program, an individual's personal life, his/her health, which may have nothing to do with his/her ability, his/her determination to succeed, or his/her ultimate employability. The significance of the issue of absenteeism needs to be examined in the reality of training programs and employment in the Athabasca Oil Sands region.

If programs have high absenteeism rates and low success rates, a thorough evaluation of the program's aims, objectives, and methodology should be undertaken in light of the aims and objectives of the native students.

The assumption that native people need to be relocated to the site of industry to be trained for industry has been challenged (Lloyd 1974; Heinemann 1975). The general literature suggested that training can occur more successful when it is offered in the individual's home community, where the native person is surrounded by family and friends and where there is no struggle to adapt to a new environment at the same time (Heinemann 1975). The option of offering training programs in satellite communities in the Athabasca Oil Sands region needs to be studied.

The assumption that the larger society's institutions have programs which will provide a native person with all that is required to enable them to become employed is in doubt. Many studies point to the significance of the dual concepts of local control and native involvement (Christensen and Niederfrank 1971; Thomas Owen and Associates 1976; Province of Manitoba 1975). The same writers assert that native involvement in the initiation, direction, and control of training programs is the key to the success of such programs. The degree of local control and native involvement in native training/employment programs in the Athabasca Oil Sands region needs to be examined. Such a study would include a detailed description of community aspirations and future manpower needs of communities to determine training priorities.

The assumption that native people with low educational levels and no formal, post-school training can only be trained for non-professional, labouring jobs is brought into question in the literature (Ryant and Proctor). Various programs are described where the traditional, paper qualifications are waived and native people are trained for careers in the professions and managerial areas. Other studies show that the areas into which most northern native have been trained are areas of predominantly menial, low paying,

low status jobs which have decreasing importance in the larger Canadian society (Elias 1975). The types of training available and the types of jobs for which this training equips a person need to be assessed in the Athabasca Oil Sands region.

A supplementary concern is one regarding the credentials earned through native training/employment programs (e.g., Province of Manitoba, Report of the Manpower Working Group 1975). Many programs were criticized in the literature for their seemingly meaningless certificates and qualifications (Elias 1975; Ryant and Proctor 1973). The literature stresses the importance of meaningful credentials derived from native training programs, e.g., credit for hours toward an apprenticeship. The kinds of certification available in native training programs need to be assessed as to their actual worth in the labour market and their legitimacy needs to be established.

The files provide some demographic data on past and present trainees. However, very little follow-up information is available. Therefore, except for the statistical data of the Co-West study from 1976, information on the actual employment consequences of training is unavailable from the files.

No information is available concerning the training priorities of the native students. Little is available on the views of the native trainees and native community members or native leaders toward the existing training programs' strengths and weaknesses.

The jurisdictional separations in training between the federal and provincial government; between program development and financing; between the various departments within the respective governments; between the public sector and the private sector; and between the various institutions in the Athabasca Oil Sands region, need to be clearly examined. This is particularly important if the aspirations and priorities of the native communities and native employment are to be addressed seriously.

In search for material related to native employment/ training, over 60 letters were sent to various goverment departments and training institutions across Canada. From these, 19 responses were received. Of these 19 responses, five reported that native

people were eligible to enter any of their programs, but information on special racial groups was not available. None of the remaining letters which described programs gave any indication of whether the programs had been evaluated or would be evaluated. None included any criteria for judging the success of such programs even though that information was specifically requested. Those persons interviewed during the preliminary interviews maintained that the only criterion for judging success was the employment of the trainee. There is a definite lack of criteria available from those who offer such training. Most claim that follow-up is not part of their mandate. There are, however, within the general literature, many suggestions as to facilitators to training such as: training on-the-job; job guarantees; sympathetic and knowledgeable supervision; meaningful credentials and career paths; training in the communities; native instructors and counsellors; special counselling supports; financial supports; job-related content in the training course; varied teaching techniques; and some "life skills" components. These facilitators could be sought in the courses available in the Athabasca Oil Sands region and their relationship to those local programs which have a high retention and success rate and a credible record in employment of their graduates, assessed.

It is evident that further information on the effectiveness of training/employment programs for native people in the Athabasca Oil Sands region must be gleaned from the native people themselves. Both questions of employment and of native employment/training programs have been based in a non-native context founded on a number of assumptions about employment and employment/training programs, and established on certain assumptions about native people that have gone unquestioned. For further development of employment and training programs in the region, these assumptions need to be tested. This can only be done with the support and involvement of the native people of the region.

3.4 RECOMMENDATIONS FOR FUTURE RESEARCH

In light of the problem area revealed by the review of literature, document analysis, preliminary interviews, and file analysis, the following research needs are identified:

1. An identification of the jobs available in the Athabasca Oil Sands region at present and in the next five years with specification of the actual level of general education and the particular skills required to perform the tasks which comprise each job;
2. A comprehensive examination of the general education levels and skills available within the employable native population needs to be made;
3. The community aspirations of the native people within the Athabasca Oil Sands region should be assessed. What priorities do the native people in the local communities have with regard to employment in the area? What are their priorities with regard to training?
4. Existing training programs should be undertaken utilizing criteria assessed from the literature review and subjective data gleaned from native trainees, former trainees, training personnel and employers;
5. A thorough assessment should be made of the migration and relocation patterns of the native people residing and/or working in the Athabasca Oil Sands region. This would include investigating where people come from, where they live when they arrive, what ties are maintained with their home communities, what effect these outmigrations have on local communities, and whether people migrate permanently or temporarily;
6. The economic implications of employment and training for the aboriginal population could be estimated and compared to the economic implications for the non-native people in the areas;

7. The effects of inplant procedures such as shift work, or union or company regulations on the individual native worker should be examined;
8. The job preferences of the native young people in the Athabasca Oil Sands region should be identified and correlated with the counselling service at schools. Since the majority of the prospective employees are under 30 (with many under 20 years of age) and unskilled, programs should be predicated on the interests and needs of this target group;
9. The effects of native employment on native communities should be considered. Questions such as: Are the natural leaders of the community drawn into wage employment away from community? Is there a loss of the potential for alternative development within the community? Is there an increase in school drop-outs? etc. need to be addressed; and
10. Future researchers must decide whether to study the native population alone or do a comparative study of the native population and non-native population to assess the possible differences in employment patterns between native and non-native populations. The question still remains as to which approach would be most profitable in showing native employment patterns in the Athabasca Oil Sands region.

4. AMPLIFIED REPORT

4.1 LITERATURE REVIEW: EMPLOYMENT PATTERNS AND TRAINING EMPLOYMENT PATTERNS.

4.1.1 Introduction

This report identifies, reviews, and assesses the relevant published and unpublished literature on employment patterns of native people and training/employment programs that include native trainees or employees.

4.1.2 Methodology

4.1.2.1 Purposes. The literature review was undertaken as an initial task in a study of native employment patterns in the Alberta Athabasca Oil Sands region. The purposes of this initial task were: (1) to identify facilitators and barriers to effective training/employment programs, and employment of native people; (2) to identify patterns and/or trends in native training/employment programs and employment identified in the literature; and (3) to identify gaps in the information on native employment patterns and native training/employment programs in the literature. It was anticipated that these data, in conjunction with data gathered from other more direct sources, would provide a basis upon which to formulate criteria for determinating the effectiveness of training employment programs in the Athabasca Oil Sands region. Further, it was anticipated that the data would help to formulate useful guidelines, suggestions, and recommendations for improving present training/employment programs, and for their future planning, implementation and evaluation.

4.1.2.2 Data sources. Three major types of publications were reviewed: (1) government publications; (2) non-government publications; and (3) fugitive documents (e.g., unpublished papers, and

non-circulating documents). First consideration was given to documents describing Canadian employment patterns and Canadian training/employment programs. These were supplemented by documents from the United States.

4.1.2.3 Data collection procedures. The following methods were used to identify and procure documents: (1) library materials (e.g., bibliographies, indexes) were searched; (2) over 60 government departments, agencies, research institutions, and industries were contacted by letter, telephone, or in person; and (3) a search of the documents available from the Educational Resources Information Clearinghouse (ERIC) was conducted.

4.1.2.4 Instrumentation. A semi-structured review format was used to summarize the content of publications. Where applicable, information in the following general areas was recorded: (1) program parameters (e.g., sector of the economy, industry, location, target group, funding, size of program); (2) program objectives; (3) criteria that are used to determine the success of the program; (4) types of training or employment; (5) trainee or employee supports (e.g., financial, counselling, social); (6) identified problem areas and provisions to prevent or alleviate problems; and (7) impact (e.g., completion rates, changes in employment, income, skills, life styles).

4.1.2.5 Data analysis procedures. The data derived from the review of literature were organized and summarized in terms of the three purposes of the review: (1) facilitators and barriers were identified and summarized; (2) apparent patterns and/or trends were identified and summarized; and (3) gaps in information were identified and summarized.

4.1.2.6 Reporting format. The literature review is reported in two parts. Part One synthesizes and discusses the data derived from a wide range of documents from Canada and the United States. Part

Two reviews the publications that specifically pertain to the Athabasca Oil Sands region, and discusses these in relation to the more general data presented in Part One. An annotated bibliography of the general literature appears at the end of the report. This is followed by a list of local documents made available to the researchers.

4.2 THE FINDINGS

4.2.1 Part One: General Review

The information presented in Part One is based on a wide range of documents from Canada and the United States. It is organized in terms of the three questions of the literature review.

4.2.1.1 *Question #1: What are the facilitators and barriers to effective training/employment programs, and employment of native persons, as identified in literature addressing issues of employment and employment programs of native people in general across North America?* The task of identifying facilitators and barriers to effective training/employment programs, and employment of native persons is undertaken in a number of publications. Two problem areas are evident in studies that undertake this task.

1. The distinction between cause and effect is neither clear nor straightforward. Thomas Owen and Associates (1976) point out that, where employability factors are closely inter-related, it becomes almost impossible to separate cause and effect. For example, alcoholism, poor nutrition, and inadequate housing may be both cause and effect of unemployment. Similar observations are made by the Social, Economic, Cultural Review Sub-Committee (1978) in a study of the impact of Dome/Canmar's 1977 drilling activities; and
2. Although a wide range of barriers and facilitators are identified in the literature, very few studies

> specify criteria that have been established to determine whether or not programs are successful. The clearest statement of criteria found in the literature reviewed is provided by Elias (1975) who specifies criteria as: (a) workers consider their jobs to be satisfying; (b) workers increase their income; (c) there is a decrease in transfer payment consumption; (d) there is a decrease in the working population's unemployment rate; and (e) the goods or services produced are of a quality comparable to that produced by "qualified workers."

The literature is characterized by two general approaches to facilitators and barriers. One approach, more frequently found in older studies (Pope 1969; Burgess 1966; Tarasoff et al. 1970; Wilderness Area 1967-1968; Jeanneau 1973; Conger 1973; Indian Girls 1971) focuses on the native person and sees barriers primarily in terms of such characteristics of native people as skills, attitudes, and life styles. Proposed solutions emphasize effecting changes in native people (e.g., increasing skills, improving health). More recent studies have pointed out that programs which focus solely on the native person fail to adequately take into consideration the rules, regulations, services, organizational structures, attitudes, etc. of the larger society. Barriers exist both in the ability and willingness of the native population to meet the requirements and/or expectations of the larger society and in the ability and willingness of the larger society to meet the requirements and/or expectations of the native population. This second approach, sometimes referred to as the bilateral approach, emphasizes effecting changes in both the native population (e.g., increasing skills), and in the larger society (e.g., adjusting rules and regulations) in order that a process of mutual adaptation and accommodation may take place.

An initial overview of the literature revealed 150 specific barriers or problem areas. For the purposes of this report, these can be grouped under seven main headings: (1) economic barriers;

(2) education and training barriers; (3) social and cultural barriers; (4) political barriers; (5) health barriers; (6) recruitment techniques; and (7) on-the-job barriers. Barriers listed in each general area are not mutually exclusive. The literature notes the inter-relationships among them and the complexity of reasons for unemployment. Liebow (1967:203), for example, when discussing the reasons for a person's refusal to take a job, writes:

> The reasons are many. Some are objective and reside principally in the job; some are subjective and reside principally in the man. The line between them, however, is not a clear one. Behind the man's refusal to take a job or his decision to quit one is not a simple impulse or value choice but a complex combination of assessments of objective reality on the one hand, and values, attitudes and beliefs drawn from different levels of his experience on the other.

4.2.1.1.1 Economic barriers. Many reserves and native settlements are located in areas that have limited resource development and limited available jobs. The literature identifies a number of factors associated with resource development and proposes a variety of solutions.

Large-scale industrial development. A frequently proposed solution to lack of development, illustrated in Farnsworth (1976), is the increased development of existing natural resources, the attraction of labour-intensive industries to undeveloped areas, and the upgrading of the skills of the local population to meet the labour requirements of new industries. Despite the apparent simplicity of this solution, studies seem to indicate that the record of large-scale development projects in creating employment for native populations has been unimpressive. Two problems associated with these types of projects have been the general types of employment created, and the need for relocation.

1. Types of employment

Elias (1975), after reviewing a number of northern development projects, notes that these have very often involved high

short-term manpower needs (e.g., construction or installation types of activities), but have provided only limited opportunities for long-term employment. Similar problems were noted by Berger (1977) who concludes that the proposed construction of the MacKenzie Valley pipeline will not provide permanent employment for a significant number of native people.

2. Relocation

Large-scale development projects often require the relocation of native persons or groups from their home communities. Two types of relocation are reviewed in the literature: permanent relocation, and semi-permanent or rotational relocation. Lloyd (1974), after reviewing 12 northern native relocation programs, concludes that semi-permanent or rotational relocation projects have more chance for success than those that require permanent relocation. Permanent relocation was found to fail in all programs that he reviewed, with virtually all relocated employees eventually returning to their home communities or other similar northern communities.

The literature indicates that permanent relocation projects will require at least four components if they are to have any chance for success.

(a) Housing

Lloyd (1974), Carr and Associates (1968), and Stevenson (1968) all point to the importance of providing adequate housing.

(b) Pre-move orientations

Lloyd (1974), Carr and Associates (1968), and Stevenson (1968) agree that pre-move orientations are crucial to successful relocation. These orientations should include the briefing of native persons on job expectations, rules of social behaviour, new life styles, etc. Stevenson (1968) recommends that information be provided in realistic terms rather than in idealistic terms.

(c) On-going counselling

There is general agreement that information to, and counselling assistance for, relocated workers should not end with the move. Lloyd (1974) outlines the need for on-going counselling services. Carr and Associates (1968) suggest that relocated workers be met by people able to assist in a variety of ways and able to provide a variety of types of information. He also recommends that bilingual procedure manuals be made available.

(d) Provisions for maintaining kinship and cultural ties

Both Stevenson (1968) and Carr Associates (1968) recommend this.

In addition to programs that require permanent relocation, the literature also discusses programs that involve semi-permanent or rotational relocation. Nogas (1976) describes the apparently successful program of Gulf Minerals Canada Limited, which moves native staff in and out of the on-site facilities at Rabbit Lake on a seven-day rotation basis within a 725 km radius. He reports a competent work force, good morale, and relatively low turnover. Two studies relevant to the alternative of rotational relocation are Lloyd (1974), and Hobart (1976). Both studies conclude that semi-permanent or rotational relocation is preferable to permanent relocation as an alternative for northern native people. Lloyd (1974) identifies three critical areas for successful semi-permanent relocation programs:

1. Pre-move orientations about work conditions, rules, pay, etc. are essential;
2. Total equality of job opportunity with other employees, including training on-the-job and the opportunities for advancement, is essential; and
3. A company-organized, logistical operation to move workers between jobs and their homes on a regular basis is required.

Hobart (1976) adds to this list on the basis of his review of research on human reactions to isolation, and on the basis of the data he collected from workers, families, and communities that had experienced work rotation. He agrees with Lloyd that adequate pre-move orientations, including the full range of conditions and circumstances at the work site, are essential; and adds the following considerations for maintaining morale, reducing stress, and promoting successful rotation programs:

1. Work periods of less than 30 days are preferable to longer periods. Duration of work should be restricted to 20 days, or a maximum of 30 days in communities where other employment is available. In general, longer periods should be restricted to single men. The greater the distance of the work-site from the home community, the shorter should be the duration of the work period. Where possible, workers should be permitted to return home for one or two days on the weekends;
2. Feelings of group membership are important to morale. Where possible, men on the same rotation shift should be members of the same area or dialect or sub-group;
3. The work should be meaningful and enjoyable. Further, the higher the wages, the better the worker is able to cope with the stresses of isolation. An attempt should be made to match the interests and abilities of the worker with the opportunities and demands of the job. If necessary, work pools for unskilled and semi-skilled rotation workers should be developed to enable workers to remain at home longer than the routine period;
4. Familiarity with, and the quality and quantity of food served in isolation are important to morale. Mess hall menus should take into consideration the appetites and food preferences of native workers;

5. Provision of adequate opportunities for workers to communicate with loved ones at home is important to the success of work-rotation programs. Explicit arrangements should be worked out so that workers can communicate with their families at home;
6. Adequate, uncrowded facilities are important to morale; and
7. Payment of wages should be frequent, and a portion of the worker's wages should be sent directly to the family.

Alternative development. Although there is a widespread support for large-scale industrial development as one potential solution to the economic problems of populations residing in areas with limited resource development, the literature increasingly reflects the view that this solution, in itself, is not sufficient. Berger (1977:XXI) claims that "rather than solving the North's economic problems, it may accentuate them." Disillusionment with large-scale industrial development as a solution is based, in large measure, on the unimpressive record of developmental types of activities in providing permanent employment for local residents. The observed emphasis on short-term construction and installation types of activities (Elias 1975) and the failure of permanent relocation programs (Lloyd 1974; Hobart 1976) have been noted in previous sections of this report. The option of semi-permanent relocation appears to have greater prospects for success than permanent relocation. However, its success relies heavily on the ability and willingness of large companies to adjust work schedules and to provide necessary support systems. Hobart (1976) acknowledges that several of his recommendations for successful work rotation would be difficult to implement. Even if highly successful work-rotation programs were implemented, the literature makes no claim that these would meet all employment requirements of native persons.

A number of publications reviewed suggest that alternative types of development must replace or supplement the emphasis on large-scale industrial development. Thomas Owen and Associates (1976)

recommend that alternatives to resource-based and export-oriented manpower planning be sought. They suggest that a community-based, marginally self-sufficient economy be tested. Moncrieff, Montery and Associates Ltd. (1972) also recommend emphasizing smaller, less capital-intensive enterprises than large companies offer, and point out a need for native-owned and managed undertakings. The literature suggests two necessary conditions for successful alternative types of employment.

1. Development aid (capital)

Lack of development capital is seen as a major barrier. Morrison (1975) states that development aid for economic enterprises must be provided if native persons are to implement working plans for socio-economic growth and adaptation. His research indicates that native persons would desire their own small businesses if capital was available. Moncrieff, Montery and Associates Ltd. (1972) recommend government assistance to native enterprises.

2. Local involvement

There is widespread support in the literature for native involvement in planning and implementing development programs. Born (1970) argues that successful adaptation programs must be undertaken with the consent and co-operation of the native people, and recommends that programs go only as far as native communities permit. Christensen and Niederfrank (1971) cite Indian involvement as a primary reason for the successful economic development of the Fort McDermott reserve of Nevada. Deprez and Sigurdson (1969), in an examination of five programs, conclude that local residents should mobilize the work force and initiate enterprises. Local leadership and direction are also emphasized by the Province of Manitoba Working Group (1975) in an examination of basis assumptions and existing programs for northern residents.

Related to the question of local initiative and involvement is the existence and development of managerial and entrepreneurial skills. Some studies have pointed to a lack of such skills. Christensen and Niederfrank (1974), found that non-native management was required for economic development on the Fort McDermott reserve,

although the project stressed native involvement. Duran and Duran (1973) attribute the failure of the Cape Crocker Furniture Factory partly to a neglect of training in management skills, and accounting and marketing techniques. Moncrieff, Montery and Associates Ltd. (1972) recommend that the government provide resources to develop the management skills necessary for native-run business.

Other studies have questioned the assumption that there is a widespread lack of management and entrepreneurial skills among native groups. Native groups and individuals, it is claimed, have often shown considerable initiative when given the opportunity. Further, individuals who show initiative are often absorbed (co-opted) by the larger society, making lack of management skills more apparent than real.

4.2.1.1.2 Education and training barriers

While some studies focus on the economic development of an area and the available jobs, others focus on the education/training requirements of available jobs and the education/training levels of those seeking jobs. Education and training barriers are discussed in terms of two general sub-categories: (1) formal schooling; and (2) occupational training.

1. Formal schooling

Completed years of formal schooling of native persons are generally below the Canadian average. Low levels of formal schooling are attributed, in the literature, to:

(a) Difficulties in attracting trained, permanent teachers to isolated communities, and lack of trained indigenous teachers;
(b) Limited years of schooling available in some communities;
(c) Church influence in some schools;
(d) Limitations of curricula (e.g., lack of relevant local materials);
(e) Conflict in federal-provincial jurisdictions;

(f) Failure of education systems to adjust their calendar year to traditional hunting and fishing societies; and
(g) Lack of communication between non-indigenous teachers and administrators and the local community.

In addition to a variety of solutions for increasing the schooling levels of children, the literature proposes three solutions to the problem of low schooling levels of working-age adults. One solution focuses on the native person; one focuses on the hiring practices of the employer; and one focuses on the conditions of work.

(a) One proposed solution is adult basic education and upgrading. For example, Pope (1969) describes a basic educational program for adult native Americans at the University of Montana.

Although low levels of formal schooling of native people are recognized, the literature is ambivalent about the extent to which raising formal education levels facilitates employment. De Long (1973), in a study of manpower training programs in South Dakota, found that higher levels of formal schooling improved the trainee's chances for successfully completing training programs. However, a number of studies have questioned the usefulness of concentrating on adult basic education as a solution to unemployment. Deprez and Sigurdson (1969), in a study of five Indian training programs, conclude that education is effective only if the native persons involved are able to identify with the goals of the program. The study claims that education is not a necessary precondition for economic transition.

Adult basic education programs have often assumed that the primary employment value of formal schooling is basic adult literacy. In instances where adults have not had the benefit of formal schooling, the proposed

solution is to raise literacy levels through adult programs. Recent studies, however, have indicated that, while literacy may be one important outcome of formal schooling, it is not the only outcome, nor necessarily the most important outcome for employment acquisition and maintenance. Roberts (1974), Rogers (1969), and Wolfart (1971) all note that increased education has not had its assumed benefits. Elias (1975) points out that an important outcome of protracted formal schooling is a tolerance of conditions that may be encountered in the work context (e.g., authority relationships, boredom, alienation, etc.). This outcome is not provided by short-term adult basic education programs and, hence, these programs have limitations in terms of work adjustment. However, without basic literacy or minimal schooling, the native people have little chance to obtain a job in the first place.

(b) A second proposed solution to low levels of formal schooling is the discontinuation of the employer practice of using grade level or formal education as a screening device. For example, the Manitoba New Careers Program described by Ryant and Proctor (1973) secures entry into the civil service by having usual credentials waived. Elias (1975) points out that credentials or standards are often artificial barriers which have little to do with the ability of persons to work, produce quality products, or derive work satisfaction. However, native people are as aware as others in society that entrance requirements for most occupations have been steadily rising. The increase in formal qualifications does not necessarily represent a change in the skills required to perform the job. Therefore, the removal of educational qualifications for certain jobs for native people would tend

to concentrate and trap native people in the lower level unskilled occupations.

(c) A third solution to problems associated with low levels of formal schooling relates to the accompanying lack of acquired tolerance for alienating work conditions. Elias (1975) notes that one possible approach is to alter the forms of production, including patterns of ownership, decision-making and reward allocation in order to make the work place less alienating.

2. Occupational Training

A frequently identified barrier to employment is lack of skilled trades or vocational training. A major assumption of training and training-employment programs has been that training will reduce unemployment among native persons. This assumption has resulted in a wide variety of programs aimed at increasing the work skills of native people. The literature points out, however, that, while lack of vocational skills may prevent the acquisition of jobs requiring those skills, vocational training programs do not, by themselves, guarantee reduced unemployment. For example, in a 1970 study, Purley notes that, although vocational training has increased, the level of unemployment of native people has not been substantially reduced.

Deprez and Sigurdson (1969) note that formal training in industry is not a necessary condition for the adaptation of native people to an industrial, economic environment. In practise, they found that training often presented problems where none existed and discouraged native people. They emphasize employment first, then training if necessary.

Much of the literature reviewed is directed towards identifying the elements that facilitate the success or failure of different types of training programs. These include:

(a) On-the-job training

There is a trend in the literature to emphasize on-the-job training in preference to training in an

institutional setting. Recommendations that training be conducted on-site, or on-the-job, are made by R. Wall (1975), Wilson (1975), Ryant and Proctor (1973), and Watson and Rowe (1976).

(b) Job guarantees

The success of training programs is related, according to Wilson (1975), Ryant and Proctor (1973), Wolfart (1971), and Thomas Owen and Associates (1976), to specific training for existing job opportunities. Successful completion of training is more likely if trainees are guaranteed jobs, or if it is clear that jobs will be available. By itself, training does not lead to employment.

(c) Supervision

A key element in the successful completion of training programs (as well as employment maintenance) has been identified as the supervisor. Ryant and Proctor (1973), in an evaluation of the New Careers program in Manitoba, note the importance of the line supervisor and call for the careful selection of supervisors on the basis of their understanding of the goals and objectives of the program, and their support for those goals. Morrison (1975) found that poor interpersonal relationships with the immediate supervisor was a major cause for leaving employment. R. Wall (1975), in a study of several training programs, notes that supervisory and training staff must be sympathetic as well as qualified. Hobart and Kupfer (1973) urge the careful selection and orientation of supervisors in native psychology and values. Inservice training of supervisory and other staff working with native persons is recommended by Heinemann (1975) and Adams, et al. (1971).

(d) Credentials and career paths

Some publications contend that to be successful, training/employment programs must offer legitimate credentials

and career paths. The Report of the Manpower Working Group (Province of Manitoba 1975) describes training as a vehicle to increase the employability of the client by ensuring access to career paths. It is claimed that too many programs are restricted to low-paying jobs with little or no chance for mobility. Gemini North Ltd. (1975) suggests that procedures for certifying journeyman status be examined with a view to shortening or modifying requirements.

(e) Training in the community

In some instances it has been found that training is more successful when conducted in the local community than when conducted in a distant location, or institutional setting. Heinemann (1975) notes that coping skills may be more readily acquired in one's home community where informal supports are available and trainees do not face too many problems and pressures at once.

(f) Native teachers or instructors

Some studies suggest that training is more successful when native teachers or instructors are employed. The advantages of this practice are believed to include improved communications and greater commitment to, or identification with, the goals of the program (e.g., Heinemann 1975).

(g) Special counselling supports

Special counselling supports are crucial elements of a number of training programs described in the literature (see Ryant and Proctor 1973, Wilson 1975, Gemini North Ltd. 1975). Readily available assistance with personal problems, with job placement, etc., is considered essential to the success of these programs.

(h) Financial supports

Financial supports, in the form of special allowances or salaries for on-the-job work, are regarded as

important elements of training programs by Gemini North Ltd. (1971), which emphasize that support services should include allowances and subsistence, housing, family support, and transportation support.

(i) Training program

No single approach to the presentation of course or program content is identified in the literature as superior. However, several publications describe techniques which appear to have had some success. Jeanneau (1973) recommends an integrated approach to program content rather than the compartmentalization of "subjects," and suggests minimum lecturing and maximum student participation. Gemini North Ltd. (1975) suggests examining the concept of incremental, achievement-oriented, individualized training units and simulated job circumstances as possible successful models of training.

(j) Life skills

Several publications recommend that life skills training be included as part of the training program (Watson and Rowe 1976). R. Wall (1975) recommends that life skills training be restricted to job-related tasks, relocation requirements, etc.

4.2.1.1.3 Social and cultural barriers

The literature discusses a wide range of barriers which are associated with, or attributed to, differences in cultures and life styles.

1. Language barriers

Language barriers may hinder both job acquisition and maintenance. Labour market information may not be known to persons who do not read or speak the language of the majority. Similarly, on-the-job communication problems may arise.

The extent to which language barriers exist appears to

vary with location, and generation. Further, the extent to which language differences are considered a barrier to employment varies. Kuo (1972) concludes that knowledge of English was not an important criterion of earning capacity in the MacKenzie Delta region. However, Hobart and Kupfer (1973) conclude that the Inuits' lack of English (and technical jargon) was a key problem in the work area at Coppermine. Hobart (1974), in a study of Arctic oil exploration, recommends that a northern labour relations officer be retained to facilitate communications between workers and supervisors. He also recommends that Inuits be used as sub-foremen, or straw bosses.

2. Cultural identity

Several publications point out a need for cultural support systems. It is claimed that native persons may be reluctant to migrate from their home communities for fear of losing their identity. Relocation and changes in life styles may result in a sense of anomie and helplessness, which in turn may give rise to dysfunctional coping mechanisms (e.g., alcoholism), or pressures to return to the former life style. Neither of these outcomes facilitates employment acquisition or maintenance. Born (1970) urges that minority groups be encouraged to maintain their identity through a process of cultural adaptation. Carr and Associates (1968) recommend that mining companies develop opportunities for native employees to enjoy their own culture and friends during periods of adjustment. Heinemann (1975) notes that the employer's responsibility should extend beyond the work place and include developing means of cultural and cross-cultural programming.

3. Life style barriers

A recurrent theme of the literature is that the traditional life styles, and related "life skills" and values of native groups are often at variance with the requirements of employment in an industrial setting. Variations on this theme, and proposed solutions, include:

(a) Life skills approach

It is claimed that persons who are suddenly faced with a new life style (e.g., employment in an industrial

setting; residence in an urban environment) will require a variety of new skills and and understandings in order to survive. These new skills are referred to as "life skills" and include such things as: acceptance of work habits regulated by the clock and calendar, appropriate attitudes towards authority, budgeting and money management skills, knowledge and skills related to using household equipment (e.g., telephones, appliances), knowledge and skills related to using the services of society (e.g., transportation, medical, recreation), knowledge of diet and food preparation, etc.

In general, the literature reviewed concludes that the "life skills" approach has very limited value as a solution to unemployment. Life skills should be viewed as a step in the long process leading from a traditional lifestyle to a new lifestyle. Since wage employment itself is a product of the non-native society, any effort to train people for employment necessarily involves a training in a new set of values and a new lifestyle.

Morrison (1975) points out that the concept of "life skills" implies cultural inadequacy for groups that supposedly lack these skills, and is, therefore, subtly destructive. Emphasis on the acquisition of "life skills" has been replaced in the literature by an emphasis on integration of work, life and social skills. The literature suggests that:

(i) "Life Skills" should be restricted to job-related tasks and relocation requirements if relocation is necessary (Wall 1975). However, La Rusiac (1970) disagrees, claiming that job training should also look at how the system works in order that native people can develop both functional skills and strategies for self-defence.

(ii) The company's responsibility should extend beyond the place of work. What happens in the work place has a significant impact on a worker's community and family relationships and vice versa. Integrated, comprehensive programs are needed (Heinemann 1975). Counselling and guidance should be integral parts of training programs (Gemini North Ltd. 1975, Christensen and Niederfrank 1971).

(b) Employment preferences

A second area related to traditional life styles that is discussed in the literature addresses the question of employment preferences of native people. This is an area in which there are conflicting opinions. One group of articles and studies stresses the importance of traditional hunting and fishing life styles, traditional orientation toward the land and nature, and preferences for seasonal types of employment. The other group of articles and studies emphasizes the serious negative consequences of stereotyping native people in terms of "traditional" societies and making unsubstantiated, or false, assumptions about native employment preferences.

(i) Traditional job preferences. Several studies emphasize the need for employers to accommodate traditional life styles. Rogers (1969) attributes failure of educational programs in Greenland to their incompatability with traditional hunting and fishing semi-nomadic societies. Wolfart (1971) identifies a high job turnover rate among trappers in the MacKenzie Delta region, and claims jobs are viewed as a means to earn money to return to the trap line. Nogas (1976) notes the success of the Gulf fly-in rotation program, and states that the program is well received in northern communities because it provides opportunities for

regular employment while allowing northern residents to continue their traditional life style including hunting, fishing, and trapping.

(ii) Non-traditional preferences. While it may be valid that some native persons and groups prefer seasonal, casual types of employment, several studies have shown that it should not be assumed that all, or even the majority, of native people prefer this. Smith (1974), in a study of northern high school students, finds no differences between native and non-native students in job aspirations. Both groups displayed a range of aspirations. Lampe (1974), in a survey of male Yukon natives, provides evidence that it is a myth that native people prefer seasonal, menial, outdoor jobs. Rather, the survey shows a preference for jobs that pay premium wages for previous experience and that last one year or longer.

(iii) Stereotyping. While it may be true that in some instances preference for seasonal employment presents a barrier to long-term employment, the false stereotyping of native job preferences also presents a barrier. False expectations and stereotyping hinder the future employment possibilities of adults in that native people are often channelled into training programs that lead to low paying, temporary, or outdoor types of jobs. Elias (1975) notes that, in Manitoba, Saskatchewan and the Northwest Territories, almost one third of northern training programs lead to occupations providing less than a poverty-line income, and two thirds lead to occupations providing income which is less than the national average. Among the occupations for which training is provided, 68% have unemployment rates that are higher than the national average, and one quarter are in declining occupational

areas. This type of training is not consistent with the job aspirations of native people noted by Smith (1967 and 1974) and Lampe (1974).

Inappropriate training programs that do not adequately take into consideration aspirations and preferences perpetuate unemployment since workers will not want to remain in jobs that fail to meet their aspirations and preferences (Elias 1975).

(c) Self-confidence

A third variation on the theme of differing life styles focuses on the personal consequences of social and cultural barriers. It is observed by some that native persons lack self-confidence and this is attributed to: lack of comprehension of the rules and regulations; punishment or ridicule on grounds not fully comprehended (e.g., suspension for lateness) (Hobart and Kupfer 1973); low or false expectations of employers, teachers, and non-native society about the aspirations and abilities of native persons; and repeated personal failure and lack of native success models (Lampe 1974, Elias 1975).

Proposed solutions to the problem of lack of self-confidence include providing opportunities to succeed, and providing success experiences. R. Wall (1975) recommends that selection of persons for training-employment programs be based on the likelihood of success. Moncrieff, Montery and Associates Ltd. (1972) urge rigorous screening of individuals for management training in order to select persons who can succeed, and recommends the establishment of a junior achievement program. Heinemann (1975) states that people who will probably not be successful in a given program should be counselled out.

The literature expresses divergent opinions about the impact on native communities of screening for success

or "creaming". Heinemann (1975) regards the outcomes as beneficial in that the recruitment of community leaders supposedly provides a means of advancement for these individuals, and for individuals who will replace them in the community. Gemini North Ltd. (1975), however, caution that recruitment should be phased to ensure that community requirements are not jeopardized.

4.2.1.1.4 Political barriers

The literature addresses a number of problems related to control and decision-making.

1. Local control and involvement

A frequent theme of the literature is the need to promote local involvement, self-determination, and local leadership in order for development, training, and employment programs to succeed. Deprez and Sigurdson (1969) claim that it is imperative that native people be able to identify with the goals of education, and recommend that native people assume leadership in mobilizing the native workforce and initiating enterprises. La Rusiac (1970) supports the claim that native persons must participate in decisions about how they will structure their future. The 1975 Report of the Manpower Working Group (Province of Manitoba 1975) stresses local control over the economy, local direction,, and local leadership. Christensen and Niederfrank (1971) conclude that personal and social stability result from situations in which native people are involved in their own development corporation. They note that native initiative was a key element in the success of industrialization on the Fort McDermott Reserve. Born (1970) states that change can only take place with the consent and co-operation of native people.

2. Jurisdictional/co-ordination problems

A barrier identified occasionally in the literature reviewed relates to issues arising from legally defined federal/provincial responsibilities, the overlapping of jurisdictions, and the problems associated with co-ordinating the responsibilities, priorities

and planning of different levels of government and different government departments. Although jurisdictional and co-ordination problems are referred to in the literature, none of the articles reviewed comprehensively describes the actual manifestations and outcomes of these problems.

A confidential document provided to CIR by a federal government department outlines that at the federal level there has been no officially recognized government department with responsibility for providing a comprehensive approach to employment. Often the development and employment activities of various departments have been conducted in isolation from each other, and with little or no co-ordination of efforts. Funding and employment activities at the federal level have primarily involved four departments:

(a) Canada Employment and Immigration Commission (placement, training, counselling, direct job creation, wage subsidy programs, support to employers, mobility assistance to individuals, and funding to Native Outreach);

(b) Indian Affairs and Northern Development (placement, training, counselling, direct job creation, support to employers and industry). Since 1975 there has been a decrease in the Department of Indian Affairs and Northern Development (DIAND) spending and an increase in Employment and Immigration spending. The policy has been for DIAND to use the supports of other departments and to provide supports only when not available through other departments;

(c) Regional Economic Expansion (DREE) (primarily supports employers and industry). Beginning in about 1974, DREE placed more and more money into training programs, particularly in connection with Federal-Provincial Northland development agreements; and

(d) Industry, Trade and Commerce (primarily supports to employers and industry). The literature suggests that

the actual manifestations and outcomes of these interlapping responsibilities need to be examined in some detail.

4.2.1.1.5 Health and physical barriers

The literature suggests two types of health barriers; one arising from the specific health problems associated with remote and isolated native communities, the other arising from health-related aptitude measures that are employed as screening devices by the larger society. A third barrier in this area relates to the general physical condition of the worker.

1. Specific health problems

The literature indicates that the general health of native Canadians is often below that of other Canadians. In remote and isolated communities poor health is seen as growing out of such things as: poor housing, poor water supply, low income, inadequate health care, and health care designed to fit southern clinical conditions rather than northern conditions. High rates of respiratory disease and ear infections are common.

Specific health problems may present barriers to employment in industries that are established in the North. For example, a person with a history of respiratory disease, or damaged lung tissue, may not be an appropriate candidate for working in a mine.

2. Health-related aptitude measures

Elias (1975) points out the significant relationship between general health and general aptitude. Many of the characteristics that make up aptitude measures are biological in nature (e.g., colour discrimination, eye-hand-foot co-ordination, manual dexterity, spatial sense, etc.). Since these aptitudes are related to general health, the screening of both school children and workers on the basis of these aptitudes is, in a sense, screening on the basis of health.

3. Physical condition

The physical condition of persons may present a barrier to some kinds of employment. People who have been idle, or who have

been employed in jobs that require little physical exertion, may not be able to readily move into strenuous labouring jobs. Liebow (1967) relates the difficult experiences of some workers whose physical conditions made them ill-prepared to perform strenuous jobs. It may take a healthy, but physically out-of-condition person several weeks to reach the level of fitness required by the job. The employer or supervisor may be unwilling or unable to carry the person for that length of time.

4.2.1.1.6 Recruitment techniques

Non-entry into the job market may result from lack of knowledge about job opportunities or lack of prevocational counselling. Suggestions to improve the recruitment process have included: (1) special employment services for native people (Carr and Associates 1968, Lampe 1974); (2) employment services staffed by native people (Lampe 1974); (3) mandatory use of native employment services by relevant employers (Lampe 1974); (4) decentralization of recruitment to the community level (Gemini North Ltd. 1975, Heinemann 1975); (5) regular and immediate follow-up of applicants (Gemini North Ltd. 1975); (6) community selection committee (Heinemann 1975); and (7) company local employment consultants (Heinemann 1975).

4.2.1.1.7 On-the-job barriers

Two types of barriers were identified: (1) company, and (2) union. Padfield and Williams (1973:38) state:

> To employ more traditional unemployables industry needs to put aside its selection standards, relax its discipline policies, redesign its entry jobs, provide fundamental training, cushion the impact of personal functions, set guidelines for supervisors and absorb the backlash.

Company practices. Other writers as well identify the dichotomy between company desire to employ the unemployed and the structure within the company which is not geared toward people who

do not have adequate job experience, training, and attitudes. Thus, the following problems appear in the literature: (1) attendance and lateness; (2) conflicts with supervisors; (3) lack of experience; and (4) misinformation.

1. Attendance and lateness

Many writers identify the conflicts between companies and employees as a result of frequent absenteeism and lateness. Some attribute such conflict to cultural determinants, e.g., Indian time. Some attribute it to lack of appropriate pre-employment inculcation of values of concern to industry, e.g., productivity, punctuality, etc. For such authors, resolution of such difficulties reside with the individual employee with the assistance of counselling and a "life skills" course to help overcome his lack of experience.

Other authors (Morrison 1975; Padfield and Williams (1973) suggest that the company as well as the individual workers should make accommodations. Padfield and Williams maintain that enumerating infractions is not sufficient, for numbers explain nothing. The reasons for such behaviour need to be known and assessed. Only then can the company assure that the behaviour results from an individual's lack of knowledge or appropriate attitude. Padfield and Williams assert that attendance, so easily quantifiable, can on occasion be used as an excuse for companies to abandon a project they do not really believe in. The blame for the failure can be placed on the individual.

Morrison (1975) acknowledged the success of some employers in the Grande Cache area who left people on their books whether they showed up for work or not. When a person reports for work, he is then employed. Another solution is to leave the precise selection of the day's complement of men to the community. The roster each day is filled, but not necessarily by the same men. Both of these latter suggestions require bilateral accommodation.

2. Conflicts with supervisors

Many studies (Hobart 1974, Morrison 1975, Padfield and Williams 1973) state that often it is the foreman's commitment to

any program of employment for native people, or other unemployables, which can make or break the program. Solutions range from orientations for foremen in native history and culture to the suggestions by Padfield and Williams to employ the potential foremen as teachers in the pre-employment period. The foremen then know the individuals who will be working with them and have become part of the orientation that has been provided. The employees will benefit from learning their foreman's idiosyncracies prior to employment under him.

3. Experience

Most native people and other traditional unemployables come to each job with a long job history characterized by failure (Liebow 1967). Unless screening procedures change, such people are automatically screened out as potential workers.

4. Misinformation

Coping difficulties within the plant are identified as relating to false expectations of the job held by the new employee. Hobart (1976) maintains that adequate briefing of the hazards of the work situation helps in adjustment. Further, Hobart found that there was a lack of understanding of the entire enterprise. Many factors including job duration, working conditions, employer expectations, etc. are either never explained or are misinterpreted. To alleviate such potential difficulties, Gulf employs a native liaison officer for communication between the men and company.

Union practices. General studies have identified difficulties existing for native/unemployables by union regulations. The literature reviewed suggests that union practices have a significant effect on the success of employment programs for native/unemployables. Heinemann (1975) recommends a more active role by union in the support services. He urges unions to provide orientation for native people with the union providing avenues for workers to air grievances and have a voice in decision-making and policy development. Gemini North Ltd. (1975) states that union hall hiring practices do not give adequate time to get to the hall from isolated areas. Liebow (1967) points out that in some jobs

the individual needs ready cash for union dues before he can take the job.

As jobs become increasingly difficult to obtain, claim Padfield and Williams (1973), the union will become less and less willing to support minority employees (affirmative action employees) by using the ploy of seniority.

The literature reviewed stressed that the solution to all inplant difficulties rested in co-operation between the union, management and the native employees accompanied by complementary adjustment.

4.2.1.2 *Question #2: What are the patterns and/or trends with regard to native employment patterns and native training/employment programs identified in the literature addressing issues of employment and employment programs of native people in general across North America?* For purposes of this review of literature, it is assumed that the emergence of patterns and/or trends implies a temporal connotation. Within the context of this review, literature was examined from approximately a fifteen-year period, 1963 to 1978. The trends reported are those seen over this time span:

1. There has been a move from descriptive accounts of native unemployment to complex analytical studies of barriers and facilitators;
2. Solutions for native unemployment are seen as multifaceted whereas in early studies providing jobs was seen as the single solution;
3. Many presuppositions previously held about native employment (e.g., Indians prefer short-term casual seasonal employment) are being challenged by evidence derived directly from native people;
4. Unilateral solutions involving changes in the native people solely are being replaced by demands for bilateral solutions requiring accommodations from both the native people and the wider society;

5. For the past fifteen years there has been a shift from on-reserve employment to off-reserve employment;
6. Many studies show that specific labels such as "native" cloud significant differences within the group. Region, educational level, closeness to the traditional way of life, all affect the individual's view of employment; and
7. Higher educational levels among young native people have raised expectations. This has created a group of native people with more opportunities than their fathers, but also more tension and frustration as the opportunities open do not live up to their expectations.

4.2.1.3 *Question #3: What gaps with regard to native employment and employment programs have been identified in literature addressing issues of employment and employment programs of native people in general across North America?* The following gaps have been identified in the general literature:

1. The distinction between cause and effect is not clear, e.g., is "social disintegration" a cause of unemployment or an outcome of unemployment?
2. Much of the literature examining training/employment programs is descriptive rather than analytical. Very few studies have questioned the basic assumptions of the programs, the objectives or the outcomes;
3. There is a definite lack of criteria for judging the success of training/employment programs or native employment ventures;
4. Although many training/employment programs exist, the performance of most has not been evaluated;
5. Most agencies offering training/employment programs claim that follow-up is not part of their mandate;

6. The literature does not contain evaluative criteria for native training/employment programs derived from native participants or members of the native community that the training/employment program was serving;
7. Statistics on the numbers of native people employed and on the number of employable native people are questionable, when available, and in most cases are not available at all;
8. Little research is available on local native business initiatives although many are in operation. Few of these enterprises have been documented;
9. Little information is available on training/employment programs within particular industries;
10. No case studies, such as Stay Where You Were by Padfield and Williams (1973) which describes in detail a particular training/employment program for Blacks, are available on programs for native North Americans in particular industries;
11. Most proposals to alleviate native unemployment, e.g., plans for relocation, have as much non-supportive evidence as they have supportive data;
12. Jurisdictional and co-ordinational problems are rarely addressed. Such questions as, "Who should fund native training/employment programs, the federal government or private industry?" or "What responsibility does the provincial government have in the training of native people?" are not studied thoroughly; and
13. The information available on native employment is fragmented. It reports on a program, province, area or sector. No study herein reviewed has looked comprehensively at native employment.

4.2.2 Part Two: Documents from Oil Sands Region

The information presented in Part Two is based on documents specifically pertaining to the oil sands region. The review is organized in terms of the three questions of the literature review.

4.2.2.1 *Question #1: What are the facilitators and barriers to effective training/employment programs, and employment of native persons, as identified in literature specific to the Athabasca Oil Sands region?* One of the major difficulties in assessing the local literature with respect to Question 1 is that little of the literature is specifically concerned with employment in the oil sands region. Further, the question of facilitators and barriers to effective training/employment of native people is only a peripheral issue in most of the available resources. The findings are presented under the same seven main headings revealed as problem areas in the general literature. The seven areas are: (1) economic barriers; (2) education and training barriers; (3) political barriers; (4) social and cultural barriers; (5) health barriers; (6) recruitment techniques; and (7) on-the-job barriers.

4.2.2.1.1 Economic barriers

One of the solutions for native unemployment has been large-scale development in the area.

1. Large-scale development

This solution suggests that large-scale, labour-intensive, resource projects should be attracted to areas of native unemployment and underdevelopment. A significant reduction in unemployment would result from the upgrading of skills possessed by the native people. The oil sands industries are obviously large-scale development. Van Dyke et al. (1979) have commented on the relatively large scale and intense economic activity. It points out that one of the results of such planned economic development is that, in the main, it is carried on with little or no community input. Some negative

results on native communities revealed in the literature are: (a) displacement and assimilation of native communities; (b) the disruption of traditional patterns of life; and (c) natives are used as labour force at the convenience of the company rather than being offered or prepared for full-time, permanent, long-term employment.

According to Johnson (1979), Fort McMurray is currently attracting large numbers of native people from all over the north country who often migrate to the area with few financial resources and no place to stay.

Fort McMurray is identified by many writers as a boom town, subject to the influences of a boom/bust economy, and complicated by the existence of a single enterprise domination. Larson (1977) lists the problems Fort McMurray is encountering as a result of rapid development as: (a) exploitation by government and industry; (b) refusal of industry to accept social responsibility; (c) racial/ethnic tensions; (d) a high level of transience; and (e) inadequate amenities.

Larson (1979) lists what he considers resolvable consequences of development; resolvable consequences meaning those dependent upon the ingenuity of employers, government and native leadership. Solutions may be found to the following problems caused by large-scale development: (a) limited job adaptability; (b) exaggerated expectations for advancement; (c) increased alcohol consumption; (d) extended separation from families; (e) inadequate working conditions (e.g., recreation and entertainment opportunities); (f) inequitable wages and income; (g) community organization problems; (h) distrust of employers; (i) increased marital strain; (j) commuting time to employment; and (k) inadequate supervisory skills.

Larson does point out some possible positive consequences of the development: (a) cash available for an improved standard of living; (b) better housing; (c) satisfaction with work situation; (d) marital stability and satisfaction; (e) native employment in supervision and related skills and better paid occupations;

(f) reasonable access to employment situation; (g) realignment and refinement of heritage; and (h) higher educational achievement. Larson's list of positive consequences is far-reaching and demonstrates the wide area that is influenced by such large-scale development. What he further points out is that the relative destructiveness or constructiveness of such development depends on the co-operative efforts of government, employers and native leaders.

The companies are the most obvious parties responsible for the potential outcomes of the oil sands development. John Barr (1975), from Syncrude, admits that Syncrude has a social responsibility. With regard to native employment, he states that programs are in the planning stages for those who are interested in permanent jobs. Furthermore, the spinoffs from the Syncrude development will create jobs in housing, forestry, retail trades, government, transportation, banking, and other occupations. The stated policy of Syncrude is to provide residents of Northeast Alberta--regardless of race, sex, creed or national origin--with the fullest possible opportunity to qualify for and obtain employment in the company and its operation (Syncrude 1974). Special training programs and counselling are provided to help realize this objective. The results of their efforts have yet to be assessed.

2. Alternative development

Although the oil sands area is obviously an economic area based on large-scale resource development, the possibility of community-based, marginally self-sufficient economies for native communities has been mentioned in the literature. Ekistic Design Consultants Ltd. (1975) suggest various types of potential economic development for Fort McKay: (a) local timbering in conjunction with clearing the land for the oil sands operations; (b) transportation service between Fort McKay and Fort McMurray; (c) a Co-op Store Development in place of the Bay store; and (d) recreational development. However, while making these suggestions, it is also stated that, without oil sands development in the northeast region, employment opportunities would be non-existent.

Ekistic Design Consultants Ltd. (1975) suggest some alternative development for the community of Anzac. One of the options considered is "modest growth brought about by the development of local resources and industries such as timber and recreation" supplementing the existing local employment opportunities. Sims (1975) has several suggestions in the Fort Chipewyan Sub-Region Profile for alternative development such as lumbering, commercial fishing, tourism, and farming. Each of these options have drawbacks pointed out by Sims. However, any local economic development must of necessity have local support. The community profiles attempt to assess community aspirations. Sims indicates that, although Fort Chipewyan residents have not established long-range economic plans, they are reluctant to relocate in Fort McMurray and leaders would prefer the establishment of industry on reserves. According to Ekistics (1975), the people of Fort McKay do not appear to want an influx of industrially oriented people and would prefer to have their community remain much as it is.

Since local, independent, economic development entails planning, organizing, financing and management, it is argued that, for such development to occur, the communities need sound business advice. This is particularly important since possible alternative development ventures such as forestry and mining are in high-risk, unstable marketing areas.

4.2.2.1.2 Education and training barriers

Most of the studies in the oil sands region reiterate the fact that native people in the area have low educational levels. Schooling opportunities in the native communities are limited and facilities are poor. However, the native people are convinced of the importance of schooling since the community aspirations include high school and adult education classes taught on the reserves. This is of particular concern in Fort Chipewyan where there has been a high failure rate in programs taught in other centres.

1. Training Programs

Keyano College provides most of the occupational training in the oil sands area. In Keyano's comparison of race with other variables it was found: (a) natives were more likely to terminate than whites; and (b) natives tended towards industrial workers' courses, heavy equipment and pre-apprenticeship welding.

i On-the-job training

Most of the major industries report provision for on-the-job training for their employees.

ii Supervision

Syncrude Canada Ltd. (1974) has initiated a training course for supervisors to assist them in working with native employees. Other companies report special personnel hired to improve relations.

iii Apprenticeships

Studies mention the lack of skilled tradesmen among native people. This lack is attributed to the stringent requirements for acquiring journeyman status. Bechtel reports (n.d.) attempts to make apprenticeship programs more attractive to native people. One problem has been that the pay for first year apprentices is less than the pay for an unskilled labourer. Bechtel, in co-operation with Edmonton Native Outreach, succeeded in initiating an all-Indian welding course in Edmonton.

iv Special counselling supports

Syncrude (1974) recommends special counselling services. All major studies accept the challenge to hire native personnel trained in communicating with native employees and organizations.

v Training program

There are numerous suggestions for the content of training programs. Assheton-Smith (1979) recommends the following components of a successful training

program: (1) activities in which persons can achieve a feeling of success and gradually come to hold a positive self-image of themselves in relation to work; (2) short learning units which can be completed; (3) a social environment which maximizes the students' opportunities to make decisions and influence outcome by his/her own actions; (4) warm teachers who provide personal training; (5) pairing students, grouping students as friends to facilitate interpersonal relations; (6) on-the-job training should be as close as possible to the real work situation; (7) the student should work with a professional as an apprentice; (8) classrooms should be used for discussions, reviews, self-evaluation, self-criticism and academic skills. All classroom work should be job-oriented and practical; (9) learning should not be serial or restricted to a set period of time; (10) students should be paid during the training period; and (11) the student should be given a job as soon as he/she is ready for employment.

vi Life skills

Co-West Associates (1976) suggests that counselling services prior to, during, and after training include job placement and follow-up emphasizing what they term, "coping skills." Inherent in most proposed training of native employees is a "life skills" component.

4.2.2.1.3 Social and cultural barriers

The literature examines social and cultural barriers to native employment.

1. Native conceptions of life

Larson (1979) suggests that the native world view varies widely from the non-native and is likely to have a significant impact on employment habits and behavioural patterns in resource communities. The following characteristics are identified as native:

(a) constraint in relations to others tending toward emotional isolation; (b) fear of aggression from others; (c) repression of a person's own hostile impulses; (d) self-sufficiency; (e) withdrawal from sources of anxiety; (f) group-oriented goals; (g) past-present orientation; (h) nature is seen as part of the individual; (i) nonverbal; (j) pragmatic; (k) communal, collective approach; and (l) non-materialistic. Contrasted to these, the non-native values are listed as follows: (a) relatively forward in relations with others; (b) little fear of aggressiveness; (c) pride in expressing hostilities; (d) drive towards conformity; (e) tries to cope directly with anxiety; (f) goals are individually set; (g) future-oriented; (h) nature is seen as something to conquer; (i) verbal; and (m) individualistic. Since the employment market and job opportunities are based on the non-native values, native values are reported to be not facilitative by some authors.

2. Life style barriers

It is purported that social institutions of the non-native predicated on the non-native world view tend to alienate, reject and discriminate against native people. It is, thus, maintained by Larson, among others, that the clash of values and life styles leads to the isolation of the native people from non-native institutions. As was mentioned earlier, many recommend "life skills" necessary for entry into the non-native controlled work place.

Assheton-Smith uses as one of the recommended evaluative techniques for native workers, for the AOSERP study area, a social evaluation of employee life style. For example, is there a change in the work pattern? interest in education? family stability? standard of living? children's school attendance? decreased fear of geographical mobility? Such changes would indicate a lessening of life style barriers to employment.

3. Self-confidence

Larson (1979) and Assheton-Smith (1979) in particular maintain that native people lack confidence in themselves in the

job market. Assheton-Smith relates it to the self-fulfilling prophecy. Native people will not apply for a job they know is available believing that they will be turned down.

Larson (1979) quotes Riffel et al. (1972) in claiming that the self-concept and personal evaluations of competence among native people have been eroded. Natives have come to believe that any effort is futile.

Assheton-Smith's solution to the lack of self-confidence is to offer opportunities for success in employment and training programs.

4.2.2.1.4 Political barriers

1. Local Control and involvement

The community profiles (Ekistic Design Consultants Ltd. 1975) all document the lack of local control and decision-making. Van Dyke et al. (1978) point out the impotence of local communities and individuals in the face of economic decision-making being controlled by big business and goverment. It is pointed out that the individual, in fact, has little control over events.

2. Jurisdictional/co-ordination problems

As Syncrude's position paper (1974), points out, successful programming for native people depends on co-operation from business, government, and the native organization. These supra-organizations need, in turn, to be co-ordinated with local concerns. This is a major undertaking since business, government and native organizations are all governed by provincial, national and international considerations, as well.

In the field of training, Co-West Associates (1976) recommended a closer scrutiny of the respective mandates of Athabasca University and Keyano College.

4.2.2.1.5 Health and physical barriers

Van Dyke et al. (1978) have noted the intensification of personal and social problems in resource development communities.

The working situation is hard on the physical and psychological health of the individual. They further note that the natives have coped very well with the rapid change, but this development is disorienting for almost everyone.

Larson (1979) quotes statistics with regard to the general health of native people: over two and one half times as many infant deaths; more stillbirths; and approximately one half the life expectancy of other Canadians. Further, he enumerates the personal adjustment problems such as alcoholism which have physical and psychological causes and effects.

4.2.2.1.6 Recruitment techniques

Bechtel (n.d.) reports, in a document called, "Native Employment-Mildred Lake Site", that one of the reasons for the success of the company in employing native people is its open-door policy, encouraging community leaders to visit the site and subsequently for company officials to travel to the communities.

Assheton-Smith (1979) enumerates the following recruitment procedures for AOSERP: (1) tap into the community information network to (a) find what jobs are available, and (b) find what training is available; and (2) hire a "contact" person to perform #1 and to counteract local prevailing beliefs which work against employment.

Syncrude Canada Limited (1974) has, as one of its operating principles, the determination to make information with regard to job openings and requirements for jobs as well as available services to gain qualifications for these openings, available directly to the community, as well as federal and provincial agencies. It proposed to support the recruiting efforts of the training institutions and formally and consistently recruit from the ranks of qualified graduates of the training institutions. Syncrude further employs a Native Personnel Specialist to work with the native organizations, identifying jobs and interested native people and bringing the two together.

4.2.2.1.7 On-the-job barriers

1. The company

Syncrude and other employers maintain the need for qualified workmen. Further, they refer to the industry's objectives of productivity and low job turnover as paramount. They acknowledge the need to balance these factors against the obligation to provide job opportunities for local native people.

2. Union

Johnson (1979) suggests that some problems could be alleviated if the labour unions located an office in the region as well as in Edmonton.

4.2.2.2 *Question #2: What are the patterns and/or trends identified in the local documents?* The following trends were observed in the available local documents, and are summarized:

1. There is a growing concern with the effects of the oil sand development on local communities;
2. Studies of the local communities have revealed the basic cultural, social and economic aspects of these communities from the perspective of the outside researcher, not from the view of the community residents;
3. Most studies have been descriptive in nature. They have not analyzed the problems involved with native employment;
4. Most theoretical discussions have drawn their assumptions from data gathered from outside the region. Few theoretical statements have evolved from data collected in the Athabasca Oil Sands region;
5. Employment statistics are conflicting and contradictory and vary to such an extent that they appear highly suspect;
6. The literature reviewed here suggests that employers and researchers are aware of some of the problems

involved in native employment. However, the examination of these problems in native employment in the oil sands region has been spotty and speculative; and

7. Most studies are based on assumptions about native people which have not been tested and may not be relevant to the oil sands area.

4.2.2.3 *Question #3: What are the gaps identified in the local documents?* The following gaps have been identified in the available local documents:

1. Questions regarding relocation and migration have not been thoroughly addressed;
2. Alternatives to permanent relocation have not been considered;
3. No comprehensive examination of economic opportunities for the area's native people has been undertaken;
4. Local aspirations for community development and employment of community members are not surveyed;
5. No study has attempted to compare the education and training of native people with real job opportunities in the oil sands region;
6. No assessment has been made of local jobs in relation to the actual general educational level needed to perform the tasks associated with those jobs;
7. No assessment has been made of local jobs in relation to the actual skills involved in performing the tasks;
8. The appropriateness of paper qualifications for entry into specific jobs has not been researched in the oil sands region;
9. None of the available documents has contained any accommodations which employers make in rules or regulations for native employees;
10. The question of whether or not training programs should be offered in local communities has not been fully considered;

11. Research into job preferences of native people in the oil sands region has not been undertaken;
12. There is no information on who funds what programs, or aspects of programs, and who benefits from such funding;
13. The differential attitudes of particular groups within the native community (old, young, southern, Cree, Chipewyan, Metis, urban, etc.) of the oil sands region toward employment and training have not been studied; and
14. None of the available documents addressed the question of the relationship between health and employability in the oil sands region.

5. PRELIMINARY INTERVIEWS AND CONSULTATIONS

5.1 INTRODUCTION

This report relates the results of visits to the Athabasca Oil Sands region and preliminary interviews with persons from employment-related institutions, training institutions, and with employers, in the Athabasca Oil Sands region.

5.2 METHODOLOGY

The interviews were conducted to assist in the problem definition phase of the study. Some of the purposes were: (1) to identify the training/employment programs for native people in the Athabasca Oil Sands region; (2) to identify the types and quantities of information contained in existing documents and records, and to identify gaps in information; (3) to establish mutually agreeable procedures for the document review and records' search; (4) to schedule the records' search; and (5) to determine the points of view of personnel from industry, native organizations, and government agencies on relevant criteria for evaluating the effectiveness of training/employment programs. Furthermore, drafts of the instruments for the Document Review and the File Analysis were to be modified in accordance with the types and quantities of information available and the criteria identified by the interviewees.

5.2.1 Data Sources

Persons to be interviewed and consulted were identified in consultation with Ms. B. Kasinska-Banas, and/or the relevant companies and organizations.

The following list of names represents persons and organizations consulted:

Joan Tornberg	Native Outreach (Fort McMurray)
Celina Jean	Native Outreach (Fort McMurray)
Muriel Venne	Native Outreach (Edmonton)
Alvena Strasbourg	Syncrude
Douglas Schmidt	Keyano College

Al Schuster	Great Canadian Oil Sands
W.L. Cary	Great Canadian Oil Sands
Dan Sinclair	Syncrude
Ted Van Dyke	Northeast Alberta Commissioner's Office
Gerry Greg	Keyano College
Garth Leask	Canadian Bechtel
Al Smythe	Canada Manpower Centre
Terry Garvin	Syncrude
Bill Cruthers	Alberta Fish and Wildlife
Jim Tompkins	Syncrude
Jim Carberry	DIAND
Frank Frey	DIAND
Dick Johnson	Advanced Education and Manpower
J.A. Cunningham	Canadian Bechtel
Alex Gordon	Syncrude

5.2.2 Data Collection Procedures

The interviewer recorded the opinions of the respondents in writing at the time of the interview. Interview times were arranged in advance, by telephone, at the convenience of the respondent. Most interviews were conducted during the week of 12 to 16 June 1978 by CIR staff, Marvin Nygaard and Anne Deines in the company of the AOSERP Project Monitor, Barbara Kasinska-Banas.

Where feasible, interviewees were requested to provide samples of the available documents and records. This allowed CIR staff to modify the instruments for the Document Review and File Analysis to employ categories similar to those in use by the companies, agencies, and organizations.

5.2.3 Instrumentation

A semi-structured interview schedule was utilized to obtain points of view on existing native employment patterns,

training/employment programs, and relevant criteria for evaluating training/employment programs. It must be reiterated that these interviews were exploratory in nature. They were meant to elicit general opinions of various interested and knowledgeable community members. It is understood that each individual responded from his specific background and from his particular bias. The reader is cautioned to interpret the results with this in mind.

This was not meant to give hard statistical data but rather to get initial opinions on native employment patterns through the eyes of people involved in employment and training in the area. The ideas were elicited to aid in the ongoing research problem. The conclusions can then be used as researchable questions for future studies.

5.2.4 Reporting Format

Since much of the data collected related specifically to the modification and refinement of the instruments and familiarization with other data sources, such information was incorporated into the ongoing development of the study and was unsuitable for formal reporting. However, the data collected from the respondents, vis à vis the semi-structured interview schedule, with regard to opinions on existing native employment patterns, training/employment programs and relevent criteria for evaluating training/employment programs, are reported as follows. The interview data are presented in two parts. Part One deals with general areas of concern and Part Two consists of specific statements made about the area, or training programs which were considered by the interviewees as worthy of study.

5.3 THE FINDINGS

5.3.1 Part One: General Considerations

The general considerations centred on three major concerns: (1) the nature of the research on native employment patterns; (2) the particular characteristics of the Athabasca Oil Sands region; and (3) criteria for success in training/employment programs.

1. The nature of the research

It soon became evident after a very few interviews that the people in the Athabasca Oil Sands region feel that they have been "studied to death". This was apparent from the readiness of the interviewees to make concrete suggestions with regard to the manner in which the present study should proceed. Most of those interviewed stressed the point that, because of past experience, local residents are not receptive to survey techniques. It was suggested strongly that alternative methods of data collection should be explored. It was further emphasized that the study should be approached slowly since residents of the communities involved are somewhat suspicious of the motives of researchers. Further, if co-operation is to be gained from the various employers in the area, the researchers must be prepared to spend time in serious consultations with them.

Other suggestions regarded the content of the study. Many interviewees questioned the scope of the study. Some interviewees considered the limitation to major industries too restricted, stating that the major oil sands industries may not be the major employers of native people in the Athabasca Oil Sands region. Among the other employers mentioned were traditional enterprises such as trapping, the Northern Transportation Co., the sawmill, and service industries within Fort McMurray.

Others stated that not only employment patterns should be examined but also the study should look at the types of commitment industries have made to the community.

Some interviewees maintained that a study of employment cannot stand alone, but must include such things as concrete conditions within the community which have an effect on the individual employee: housing, high prices, shopping facilities, banking facilities, recreational facilities. Further on this point, several interviewees suggested that the study should look at the mental and social well-being of native persons within the employment milieu.

With regard to the particular emphasis of the study, native employment patterns, training institutions and employers (with the exception of Syncrude) do not appear to emphasize affirmative action approaches in training and employment programs. Trainees are generally not identified as native or non-native. The resultant difficulties for research designed specifically to examine native employment programs are self-evident.

2. Particular characteristics of the oil sands region

Interviewees suggested that the general demographic and social characteristics of the area should be included in any research concerned with native employment patterns. It was stated that, since Fort McMurray is described as a boom/bust town with related social problems and a relatively unstable condition, it would be unfair to study the native people in isolation from the particular characteristics of the area for, in one person's opinion, the native population may be more stable than the rest of the population.

Some interviewees stressed the fact that researchers should be aware of internal divisions within the communities. These include such things as: status vs. non-status; Cree vs. Chipewyan; generational divisions; and kinship ties.

3. Criteria for success in training/employment programs

Most interviewees agreed that the major criterion for evaluating employment and training programs is employment. Some claim that full-time employment for a period of three months indicates success; others indicate that employment for one year or more is required before a program can be deemed successful.

On the other hand, some questioned whether employment and income were, in fact, the major criteria of effectiveness.

They emphasized the broader social concerns surrounding the employee as necessary concomitants to the employment situation. On this vein, some interviewees saw life skills as a priority in training/employment programs. Others, however, did not.

5.3.2 Part Two: Specific Statements

The following are specific statements which represent certain strongly felt concerns held by some of the interviewees regarding the area or training programs.

- The most important aspect of training is the guarantee of a job.
- Native employees are treated the same as all other employees.
- There are often no jobs available in areas in which native people are trained.
- There is a danger that industry will destroy traditional skills, but provide native people with no useful skills in their place. Training may just lead to a dependency role.
- Native employment should involve traditional employment such as trapping, and employment in areas such as transportation.
- Syncrude promotes Indianness through community development activities and cultural activities.
- There is a need for follow-up to research.
- The objectives of government and industry often contradict each other.
- Findings of previous studies should be interpreted with caution. Records are often falsified.
- The effects of union rules and regulations on employment of native people should be quantified and explored.
- Employees in some of the major industries are not generally drawn from immediate surrounding areas.
- One of the biggest problems is prejudice in hiring native people.
- Often industry destroys a person's stature in the community. It also takes the best from communities, thereby removing potential leaders.
- There appears to be a transitional period of adjustment for native people. They may go through a period of

instability, frequently quitting jobs, before settling down and becoming stable employees.

- There is a need to look at the role of the college in satellite communites.

5.4 CONCLUSIONS

From the preliminary interviews the following general conclusions were apparent:

1. Survey techniques would be inappropriate instruments for a study of native employment patterns;
2. A study of native employment patterns which disregarded other aspects of the social and economic life of the area would be inadvisable;
3. A study of native employment patterns which disregards the employment patterns of other employees in the area would give a distorted picture of native employees;
4. The native population cannot be viewed as homogeneous. Internal divisions must be taken into consideration;
5. Research must proceed slowly based on allaying fears and suspicions among the local people and the acquisition of their confidence and co-operation; and
6. Looking at individuals as employees is not enough; research should include the employee as community member, tribal member, and family member.

Although these conclusions were made with no particular attention to costs, priorization, or practicality, they provide local direction and specific concerns on which to proceed with Phase II. Then a well-defined Phase II could help priorize the action needs and provide a solid empirical basis on which to set policy and plan programs.

6. FILE ANALYSIS: EMPLOYMENT AND TRAINING RECORDS, ATHABASCA OIL SANDS REGION

6.1 INTRODUCTION

This report identifies, reviews, and assesses manpower records of government agencies in the Athabasca Oil Sands region, records of training/employment programs in the Athabasca Oil Sands region, and employment records of two of the major industrial corporations in the Athabasca Oil Sands region.

6.2 PURPOSES

The file analysis was incorporated into the research design for Phase I of the investigation, Native Employment Patterns in the Athabasca Oil Sands region, for the following reasons: (1) to determine the extent and types of employment of native people; (2) to determine the extent and types of training received by native people; (3) to determine the duration of employment and training of native people; (4) to identify factors which appear to facilitate or impede the effectiveness of training/employment programs, and the employment of native people; and (5) to identify gaps and ambiguities in information.

6.3 METHODOLOGY

6.3.1 Data Sources

The major sources for this file analysis were the employment and training records of major industries (Great Canadian Oil Sands, Bechtel, Syncrude), Keyano College, and Native Outreach/ Manpower.

The files of these institutions provided an initial source of information to gain an insight into what information was available and what it had to say. The file data were not used to give hard statistical data but as an initial step in determining research questions and testable hypotheses for a future study.

The file data provide some insight into the work and training experience of those individuals who have come in contact with these institutions.

6.3.2 Limitations

The use of file data in itself imposes severe limitations on the data:

1. The researcher is limited to gaining information on only the material that is available in the files; and
2. There is no way to assess the reliability of the responses given on forms of employment agencies, educational institutions, or prospective employers.

6.3.3 Instrumentation

Two checklists were used to compile the data: one for employee records; one for trainee records. However, for the first 69 items the checklists were identical with additional categories being added to the trainee checklist.

The checklists were developed and modified in accordance with the data derived from the Literature Review and the Preliminary Interviews.

Instrument #1, Employee File Analysis Checklist, was used to summarize employee records. It was modelled from the Canada Manpower Form 701, since it appeared that this format addressed the available data. The checklist recorded information in the following area: age; sex; marital status; number of dependents; languages spoken other than English; ancestry; formal schooling; specific training; work history; interruptions in work history (voluntary and involuntary); income; and conflicts, problems, or commendations recorded in the employment record. Additional categories were included in this instrument at the request of one of the co-operating industrial employers in the Athabasca Oil Sands region. Information obtained from these additional categories can be found in the section of the report entitled, Employment Records - Employer A, only.

Instrument #2, Trainee File Analysis Checklist, was used to summarize training records. The checklist recorded information in the following areas: age; sex; marital status; number of dependents; language spoken other than English; ancestry; formal schooling; specific training; work history; interruptions in work history (voluntary and involuntary); income; conflicts, problems, or commendations recorded in the record; course name; successful or unsuccessful completion; reason for leaving the course; and information regarding the trainee's experience after leaving the course.

6.3.4 Data Collection Procedures

Several research assistants were required to complete the record search. Three options for data collection procedure were offered to the co-operating agencies:

1. File information could be coded internally by permanent staff of the co-operating company or agencies. CIR would supply the company or agency with checklists, computer coding sheets and a procedural manual, and would train and pay the company's or agency's employees for the time involved;
2. File information of the company or agency could be coded on the premises by CIR staff. Under no circumstances would any files be removed from the premises of the company or agency; and
3. File information could be photocopied by the co-operating company or agency, but all corporate and personal identification would be removed from the photocopied material. The photocopied data would be supplied to CIR staff who would then complete the coding. All photocopied data would be returned to the company or agency after coding was completed.

Two of the co-operating companies and agencies chose #1 option and CIR staff trained some of their staff to complete the coding. Two other companies and agencies chose #2 option.

The data collection took place between July and September 1978. Data were collected from files available for roughly a three-year period (i.e., from 1975) where this length of time was available and with Employer A from its inception.

A coding manual was provided for each coder to assure that each category was interpreted in the same way by all coders. The Coding Manual is included in Appendix 9.

6.3.5 Confidentiality and Anonymity Guarantee

All information was recorded onto computer coding sheets. Under no circumstances was identification to persons, businesses, agencies or organizations attached to coded data. The research assistants were strangers to the area and had no previous acquaintance with individual cases. The research assistants hired from within companies or agencies were individuals already having access to the file data.

6.3.6 Sample

Employment and demographic information was sought for a random sample of current and former employees or trainees of both native and non-native descent. A 10% to 15% sample was taken depending on the number of files available.

The small sample size is justified in that the study is not intended to give hard statistical data but rather to give a general indication of trends which can be used to build a more comprehensive study at a later date.

Every tenth file was chosen and, if a file was usuable, it was left out and the next file was used.

A sophisticated sampling frame was not deemed necessary to achieve the objectives of this problem definition phase. Questions as to the representativeness of the sample can be tested when the follow-up research is designed.

6.3.7 Data Analysis Procedure

Tabulate frequencies for each item of information.

The computer coding sheets were keypunched and Statistical Package for the Social Sciences (SPSS) subprogram FREQUENCIES was used to tabulate the frequency and percentage distributions for each item.

Identify apparent patterns in employment and training programs.

The SPSS subprogram CROSSTABS was used to determine if employment patterns varied with items such as age, sex, training, ancestry, marital status.

Identify factors which appear to facilitate or impede the effectiveness of training/employment programs and employment of native people.

Factors which appeared to facilitate or impede the effectiveness of training/employment programs, and employment of native people were identified and summarized.

Identify ambiguities and gaps in information.

Ambiguities and gaps in the information were identified and summarized.

6.3.8 Reporting Format

The findings of the file analysis will be presented in the following pages. Only group data summaries will be reported. No profiles or descriptions of individual person's records will be produced. The report will present separate analyses of trainees, potential employees, and employees. Part One will include a description of the frequencies of each item for each of the three groups followed by an analysis of the findings. Part Two will examine the cross-tabulations and apparent trends.[1] Part Three

[1] Cross-tabulations for the employee samples obtained from Athabasca Oil Sands region Employers A and B were not computed for the following reasons: (1) there was no comparison basis available for data obtained from the files of Employer A since the sample population was all native; and (2) the personnel files of Employer B stated the ancestry of the sample in less than five per cent of the cases examined, again making statistical comparison impossible.

will identify and assess factors which appear from the file data to facilitate or impede the effectiveness of training/employment programs. Part Four will identify and summarize gaps and ambiguities in the available data. A final section will itemize the general conclusions drawn from the file data.

6.3.9 Comparability

The comparability of group data was determined by the availability of file data. In the training institution, information of native and non-native was available up to 1976. In the employment agency files, native and non-native designations were made in some cases and not in others. Employer A was able to provide information only on native employees. Employer B did not distinguish native from non-native in the files.

This was recognized by the researchers as a severe handicap in reporting results. However, comparisons were made where possible to see whether any trends were evident which could be pursued in further studies. Since the study was intended to be exploratory, discovering gaps in existing file data was part of the task. Comparisons between native and non-native workers would be valuable to give a base on which to assess both groups' performances. However, such an enterprise is really beyond the scope of this study.

6.4 THE FINDINGS

6.4.1 Part One: Frequencies

The data for the trainees have been categorized under four headings: (1) personal characteristics; (2) educational background; (3) work background; and (4) problems and conflicts. For elaboration, check the accompanying histograms and the tables at the end of the section, for comparisons of group scores.

6.4.1.1 Trainees

6.4.1.1.1 Personal characteristics

The total number of files searched was 269. Of these 68% of the trainees were male, 32% female. The majority (58.4%) of the trainees were between 20 and 30 years of age. Only 34.2% were married, while 63.6% were single. Single support parents numbered 7.8% of the sample. Of the sample, 64.3% have no dependents, 14.5% have one or two dependents, 10.6% have three or four, and 2.6% had five or six dependents. (see Table 1).

From the data available, in 94.0% of the cases it was not possible to determine whether the individuals spoke languages other than English. However, in 3.7% of the sample, Cree was indicated as a second language; Chipewyan in 1.5% of the cases, French 0.4%, and Ukrainian 0.4%. Ancestry was designated "native" or "white" in the files until 1976. Therefore, in 39.0% of the sample, ancestry was "Not Stated." The files where ancestry was stated constituted 61.0% of the sample. Of the total sample, 19.7% were designated native and 41.3% were non-native. Therefore, of those labelled by race, approximately one third were native and two thirds non-native. The native sample was not listed in the files as treaty, status, or Metis. Thus, such information is not available for analysis of trainee characteristics.

6.4.1.1.2 Educational and training background

Of the sample, 93.7% were former trainees while 5.9% were current trainees. (see Table 2).

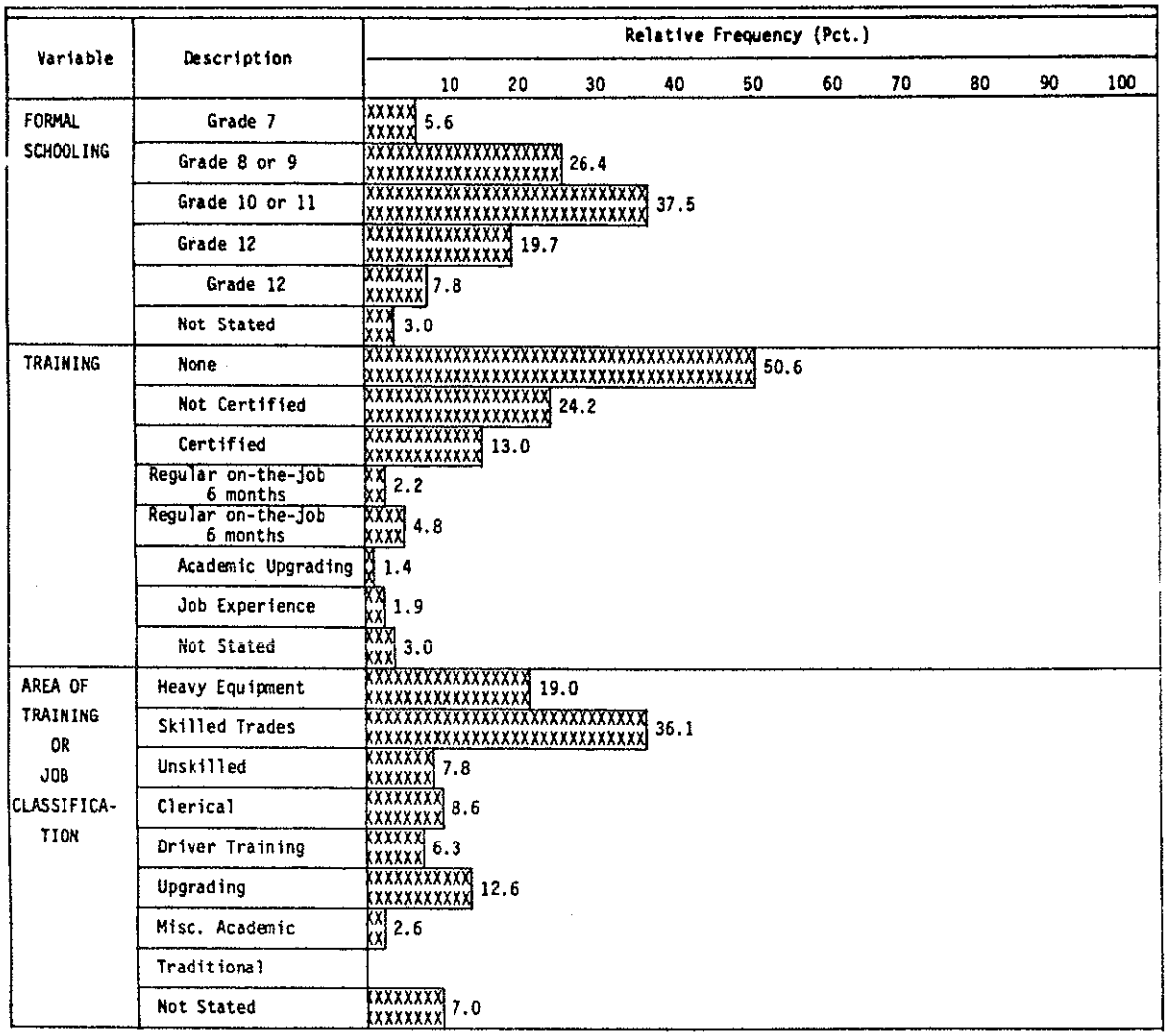
The following levels of formal schooling were recorded: 5.6%, Grade 7 or less; 26.4%, Grade 8 or 9; 37.5%, Grade 10 or 11; 19.7%, Grade 12; 7.8%, over Grade 12.

Further, 50.6% of the sample indicated that they had had no previous training; 24.2% had had some training but had no certification; 13.0% had received certification; 2.2% had one to six months training on the job; 4.8% had over six months training on the job; and 1.9% had job experience in a certain skill.

Table 1. Personal Characteristics of a Selected Sample of Current and Former Trainees.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
AGE	<20	21.2
	21-25	39.4
	26-30	19.0
	31-35	11.2
	36-40	3.7
	41-45	2.6
	46-50	1.1
	>50	1.5
	Not Stated	.4
SEX	Male	68.0
	Female	32.0
MARITAL STATUS	Married or Equivalent	34.2
	Not Married or Equivalent	63.6
	Not Stated	2.2
NUMBER OF DEPENDENTS	None	64.3
	1-2	14.5
	3-4	10.6
	5-6	2.6
	Not Stated	8.0
SINGLE SUPPORT PARENT	Yes	7.8
	No	78.2
	Not Stated	14.1
SECOND LANGUAGE	Cree	3.7
	Chipewyan	1.5
	Slavey	
	French	.4
	Chinese	
	Ukrainian	1.4
	German	
	Not Stated	94.0
ANCESTRY	Native	19.7
	Non-Native	41.3
	Not Stated	39.0
NATIVE STATUS	Not Stated	100.0

Table 2. Educational and Training Background of a Selected Sample of Current and Former Trainees.



The courses in which individuals enrolled were: trades (36.1%); heavy equipment operation (19.0%); and academic upgrading (12.6%). Other training areas were business and short training courses for unskilled labourers (Industrial Workers' Courses).

Of the sample, 74.7% had successfully completed the course; 20.8% were unsuccessful; and 5.9% were currently enrolled.

6.4.1.1.3 Work background

Within the twelve months prior to their application for training, 38.3% of the trainees reported working ten to twelve months; 13% reported working seven to nine months; 13% reported working four to six months; 4.5% worked less than three months; and 1.9% did not work.

It was revealed that 28.6% had one job over the previous 12 months; 26.4% had two or three jobs; 12.3% held no jobs or were in school; and 1.8% had four to five jobs. (see Table 3).

In terms of salaries, for the twelve months prior to application for training, 8.6% reported earning less than $3,000 and only 17.8% reported earnings of more than $10,000.

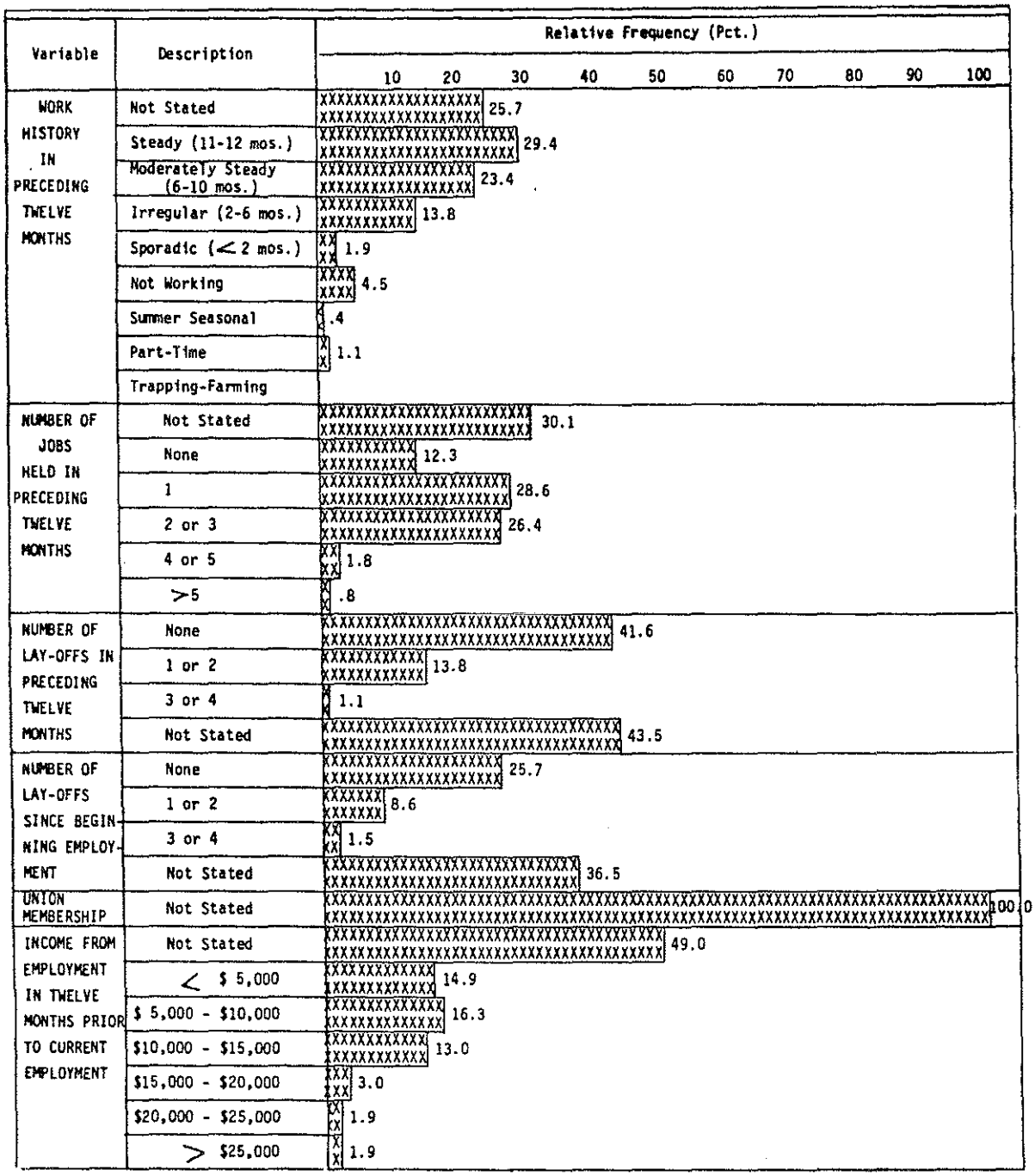
On most forms, whether the individual had received social assistance was not indicated (54.6%). However, it was reported that 9.3% of the sample had received social assistance in the previous twelve months and 22.7% had not. It was stated that 16.7% of individuals had received less than $5.00 per hour at the termination of their last job; 31.6% earned less than $7.00 per hour; and 58.9% had no record of salaries. Therefore, only 9.5% received over $7.00 per hour.

The trainees listed industry, construction, and service jobs in descending order of frequency as jobs desired.

In terms of recent work experience, the trainees listed: (1) service; (2) construction; and (3) industry, in decreasing order of frequency.

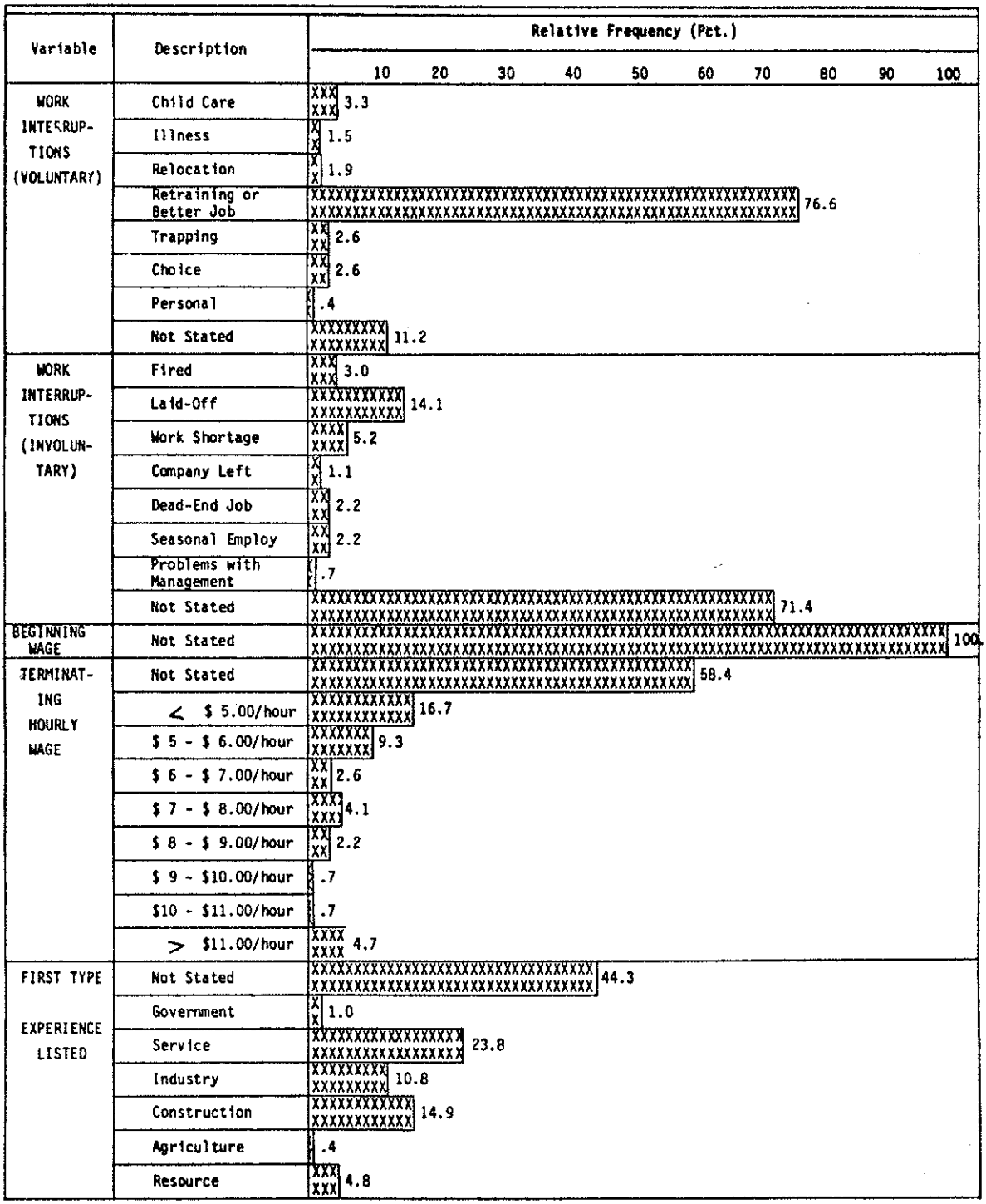
On the matter of voluntary interruptions of work, 76.6% cited retraining as their reason for leaving employment. For

Table 3. Work Background of a Selected Sample of Current and Former Trainees.



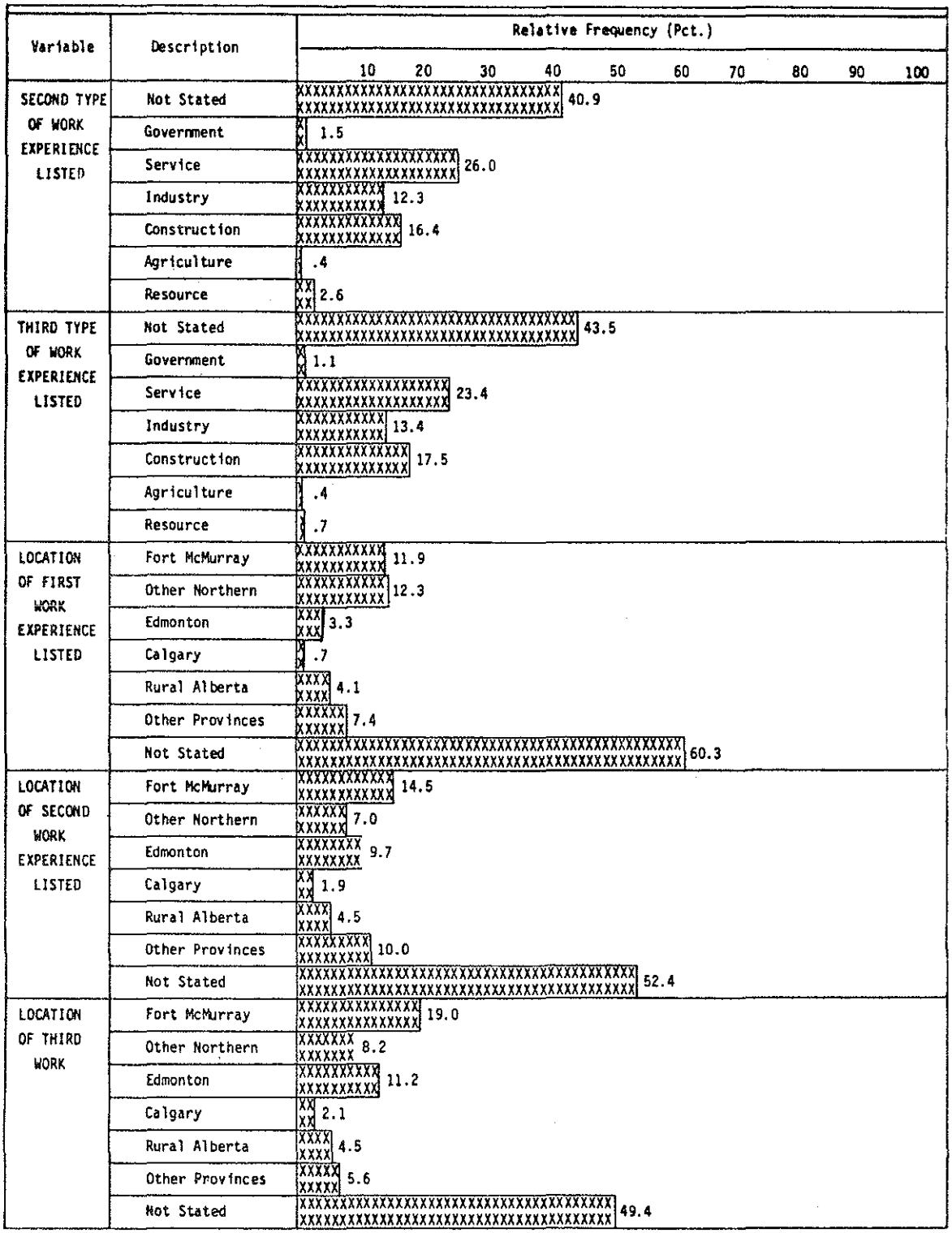
Continued . . .

Table 3 (Continued).



Continued . . .

Table 3 (Concluded).



involuntary interruptions, respondents stated lay-offs and shortages of work most often.

With regard to the location of their previous employment, trainees listed: (1) other northern centres; (2) Fort McMurray; (3) other provinces; and (4) Edmonton.

6.4.1.1.4 Problems and conflicts

The following problems are reported in Table 4: (1) role conflicts, 3.3% of the sample; (2) separation from family, 4.1%; (3) discrimination, 0.4%; (4) lack of skills, 9.7%; (5) drug and alcohol abuse, 3.3%; (6) health, 6.3%; (7) attendance, 7.1%; (8) family responsibilities, 5.9%; and (9) financial difficulties, 4.8% of cases.

These problems represent very few cases. On most files such data were not available. Of difficulties which were reported, discrimination was the least significant perhaps because it is very difficult to record and more difficult to prove.

Lack of skills was the most frequently mentioned problem reflecting the fact that these files are trainee records belonging to people who have made a commitment to re-train. The second most frequent problem was attendance. Popular concern with attendance and lateness might have led to the belief that the percentage of lateness and attendance problems would have been higher.

6.4.1.1.5 Observations

From the file data, it can be seen that the majority of trainees are single males between the ages of 20 and 30. They have some high school education but are not high school graduates. They have no formal training at all or some training without any certification. Approximately one third of those stating race are native. Most are, or have been, enrolled in trades courses, heavy equipment operation or academic upgrading. However, the majority have not had a steady job history and have left work to upgrade and re-train themselves.

Table 4. Problems and Conflicts of a Selected Sample of Current and Former Trainees.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
ROLE CONFLICTS	Yes	3.3
	No	
	Not Stated	96.7
SEPARATION FROM FAMILY	Yes	4.1
	No	
	Not Stated	95.9
DISCRIMI-NATION	Yes	.4
	No	
	Not Stated	99.6
LACK OF SKILLS	Yes	9.7
	No	
	Not Stated	90.3
DRUG AND ALCOHOL ABUSE	Yes	3.3
	No	
	Not Stated	96.7
HEALTH	Yes	6.3
	No	
	Not Stated	93.7
ATTENDANCE	Yes	7.1
	No	
	Not Stated	92.9
FAMILY RESPONSI-BILITIES	Yes	5.9
	No	
	Not Stated	94.1
FINANCIAL DIFFICUL-TIES	Yes	4.8
	No	
	Not Stated	95.2

6.4.1.2 The employee/client files. The data from the employee/client files were categorized under five headings: (1) personal characteristics; (2) education and training background; (3) work background; (4) type of work desired (aspirations); and (5) problems or conflicts. Check the employee frequency histograms for clarification.

6.4.1.2.1 Personal characteristics

The total number of employee/client files reviewed was 196. Table 5 shows that of these 74% were male and 24% were female with 2% not designated or identifiable. The majority of the sample was under 30 years of age: 26.0% under 20 and 44.9% between 20 and 30. Single persons constituted 65.3% of the sample; 23% were married. The remainder did not indicate their marital status. The majority of the cases had no dependents, while 16.8% had only one or two dependents.

Of those stating a language other than English, Cree, Chipewyan, and French were listed. Those speaking Cree constituted 30.1% of the total sample; Chipewyan, 8.7%; French, 3.6%; Chinese, 0.5%; Ukrainian, 0.5%; and German, 0.5%.

The file data did not explicitly designate race in all cases. However, 48.5% were known to be native and 16.8% were non-native. It was not possible to determine whether the native persons were treaty, non-treaty, or Metis.

6.4.1.2.2 Educational background

Table 6 shows that of those reporting their formal schooling, the following percentages represent their educational level: Grade 7 or less, 16.3%; Grade 8 or 9, 28.6%; Grade 10 or 11, 32.7%; Grade 12, 10.2%; and over Grade 12, 4.1%. It is evident that the majority have Grade 8 to 11 education. As well, almost half (46.9%) reported having no formal training beyond school. A significant portion (18%) reported job experience in a particular skill. Another 4.1% had on-the-job training over six months. Formal training without certification accounted for 14.8%, and 10.7% reported being certified.

Table 5. Personal Characteristics of a Selected Sample of Current and Former Employee/Clients.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
AGE	Not Stated	6.1
	< 20	26.0
	21-25	28.1
	26-30	16.8
	31-35	8.2
	36-40	7.7
	41-45	2.6
	46-50	2.6
	> 50	2.0
SEX	Male	74.0
	Female	24.0
	Not Stated	2.0
MARITAL STATUS	Married or Equivalent	23.0
	Not Married or Equivalent	65.3
	Not Stated	11.7
NUMBER OF DEPENDENTS	None	40.8
	1-2	16.8
	3-4	6.6
	5-6	2.6
	Not Stated	33.2
SINGLE SUPPORT PARENT	Yes	6.6
	No	49.5
	Not Stated	43.8
SECOND LANGUAGE	Cree	30.1
	Chipewyan	8.7
	Slavey	
	French	3.6
	Chinese	.5
	Ukrainian	.5
	German	.5
	Not Stated	56.1
THIRD LANGUAGE LISTED	Arabic	2.6
	French	3.1
	Cree	
	Chipewyan	
	Not Stated	94.3
ANCESTRY	Native	48.5
	Non-Native	16.8
	Not Stated	34.7
NATIVE STATUS	Not Stated	100.0

Table 6. Educational and Training Background of a Selected Sample of Current and Former Employee/Clients.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
FORMAL SCHOOLING	< Grade 7	16.3
	Grade 8 or 9	28.6
	Grade 10 or 11	32.7
	Grade 12	10.2
	> Grade 12	4.1
	Not Stated	9.1
TRAINING	None	46.9
	Not Certified	14.8
	Certified	10.7
	Regular on-the-job < 6 months	.5
	Regular on-the-job > 6 months	4.1
	Academic Upgrading	1.5
	Job Experience	18.4
	Not Stated	3.1
AREA OF TRAINING OR JOB CLASSIFICATION	Heavy Equipment	9.2
	Skilled Trades	13.8
	Unskilled	58.2
	Clerical	7.1
	Driver Training	5.6
	Upgrading	
	Misc. Academic	2.0
	Traditional	1.0
	Not Stated	3.0

As for their job classification, 58.2% were classified as unskilled labourers. Of the remainder, 13.8% were tradesmen, 9.2% heavy equipment operators, 7.1% were in clerical categories, 5.6% were drivers, 2.0% were miscellaneous, and 1.0% were in traditional native employment.

6.4.1.2.3 Work background

Only 25% of the sample reported having steady employment in the 12 months preceding their application for employment. Almost as many (21.4%) were irregularly employed, working only from two to six months with 19.9% being employed moderately/steadily for from six to ten months. A further 12.2% worked less than two months (see Table 7).

Of the sample, 14.3% had no job in the previous twelve months; 37.8% had one job; 26.5% had two or three jobs; and 3.6% had over three jobs.

With regard to work interruptions, 27.6% of the voluntary interruptions were by choice or for personal reasons. Relocation and re-training accounted for another 16%, while a better job opportunity was responsible for 5.6% of the cases. The remainder were caused by child care, illness, and pregnancy.

Involuntary work interruptions had the following causes: 33.7% by layoffs; 10.2% by work shortages; 2.6% by firings; 2.0% by the company leaving town; 1.5% by dead-end jobs; and 1% by seasonal jobs and management hassles.

Those responding to the question of the number of layoffs since beginning employment revealed: (1) 25% had no layoffs; (2) 32.7% had one or two layoffs; and (3) 4.6% had three or four layoffs.

With respect to the number of layoffs in the previous twelve months: (1) 27.6% reported no layoffs; (2) 28.6% had had one or two layoffs; and (3) 2.6% had had three or four layoffs. However, 40.2% did not state layoffs.

Only 9.2% of the total sample stated that they were union members. The terminating salaries from the last jobs prior to

Table 7. Work Background of a Selected Sample of Current and Former Employee/Clients.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
WORK HISTORY IN PRECEDING TWELVE MONTHS	Not Stated	15.3
	Steady (11-12 mos.)	25.0
	Moderately Steady (6-10 mos.)	19.9
	Irregular (2-6 mos.)	21.4
	Sporadic (< 2 mos.)	12.2
	Not Working	3.6
	Summer Seasonal	2.0
	Part-Time	.5
	Farming-Trapping	
NUMBER OF JOBS HELD IN PRECEDING TWELVE MONTHS	Not Stated	17.9
	None	14.2
	1	37.8
	2 or 3	26.5
	4 or 5	2.6
	> 5	1.0
NUMBER OF LAYOFFS IN PRECEDING TWELVE MONTHS	None	27.6
	1 or 2	28.6
	3 or 4	3.6
	Not Stated	40.2
NUMBER OF LAYOFFS SINCE BEGINNING EMPLOYMENT	None	25.0
	1 or 2	32.7
	3 or 4	4.6
	Not Stated	37.7
UNION MEMBERSHIP	Yes	9.2
	No	15.3
	Not Stated	75.5
INCOME FROM EMPLOYMENT IN TWELVE MONTHS PERIOD PRIOR TO CURRENT EMPLOYMENT	Not Stated	32.1
	< $5,000	30.6
	$5,000-$10,000	19.4
	$10,000-$15,000	9.7
	$15,000-$20,000	8.2
	$20,000-$25,000	
	> $25,000	
WORK INTERRUPTIONS (VOLUNTARY)	Child Care	
	Illness	1.0
	Relocation	2.6
	Retraining or Better Job	15.9
	Trapping	5.6
	Choice	18.4
	Personal	10.2
	Not Stated	46.4

Continued . . .

Table 7 (Continued).

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
WORK INTERRUPTIONS (INVOLUNTARY)	Fired	2.6
	Laid Off	33.7
	Work Shortage	11.7
	Company Left	2.0
	Seasonal Employment	1.0
	Problems With Management	.5
	Not Stated	48.5
BEGINNING HOURLY WAGE	Not Stated	35.2
	< $5.00/hour	33.7
	$5-6.00/hour	12.2
	$6-7.00/hour	6.7
	$7-8.00/hour	5.6
	$8-9.00/hour	4.6
	$9-10.00/hour	.5
	> $10.00/hour	1.5
TERMINATING HOURLY WAGE	Not Stated	22.4
	< $5.00/hour	28.6
	$5-6.00/hour	15.3
	$6-7.00/hour	6.7
	$7-8.00/hour	4.6
	$8-9.00/hour	9.6
	$9-10.00/hour	.7
	$10-11.00/hour	.7
	> $11.00/hour	4.7
FIRST TYPE OF WORK EXPERIENCE LISTED	Not Stated	27.1
	Government	2.6
	Service	24.0
	Industry	11.2
	Construction	28.6
	Supervisory	.5
	Agriculture	1.0
	Mining	2.0
	Resource	3.1

Continued . . .

Table 7 (Concluded).

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
SECOND TYPE OF WORK EXPERIENCE LISTED	Not Stated	32.2
	Government	1.5
	Service	20.4
	Industry	9.2
	Construction	32.1
	Supervisory	.5
	Agriculture	1.0
	Mining	
	Resource	3.1
THIRD TYPE OF WORK EXPERIENCE LISTED	Not Stated	45.9
	Government	3.6
	Service	12.2
	Industry	8.7
	Construction	26.0
	Supervisory	.5
	Agriculture	.5
	Mining	.5
	Resource	2.0
LOCATION OF FIRST WORK EXPERIENCE LISTED	Fort McMurray	29.1
	Other Northern	15.8
	Edmonton	7.1
	Calgary	1.0
	Rural Alberta	2.6
	Other Provinces	13.3
	Not Stated	31.1
LOCATION OF SECOND WORK EXPERIENCE LISTED	Fort McMurray	26.5
	Other Northern	17.9
	Edmonton	6.6
	Calgary	1.5
	Rural Alberta	2.0
	Other Provinces	11.7
	Not Stated	33.6
LOCATION OF THIRD WORK EXPERIENCE LISTED	Fort McMurray	23.0
	Other Northern	8.6
	Edmonton	5.1
	Calgary	2.0
	Rural Alberta	2.6
	Other Provinces	9.2
	Not Stated	49.5

application for employment were: (1) 21.4% at less than $4.00 per hour; (2) 29.6% at less than $5.00 per hour; (3) 54.1% at less than $7.00 per hour; and (4) 17% at over $7.00 per hour. This can be compared to beginning salaries of: (1) 23.5% at less than $4.00 per hour; (2) 33.5% at less than $5.00 per hour; (3) 53.6% at less than $7.00 per hour; and (4) 26% at over $7.00 per hour.

Income from eployment in the twelve months preceding application for employment was: (1) 18.4% at less than $3,000 per annum; (2) 50% at less than $10,000 per annum; and (3) 18% at more than $10,000 per annum. Such income came from previous work experience in construction, service industries and industry in descending order of frequency. Most of the sample had work experience in Fort McMurray, other provinces, and other northern communities.

6.4.1.2.4 Type of work desired

The type of work desired by 69.9% of the sample was permanent employment. As shown in Table 8, 11.7% stated that they would take any work. Full-time work was preferred by 77.6% with only 2.0% looking for a part-time job. The kind of work desired was: (1) construction by 42.9%; (2) service industries by 16.3%; and (3) any kind of work by 8.7% of the sample.

6.4.1.2.5 Problems and conflicts

The following problems were reported (see Table 9): (1) role conflicts by 1.5% of the sample; (2) separation from the family by 2.6% of the sample; (3) discrimination by 0.5% of the sample; (4) lack of skills by 21.9% of the sample; (5) drug and alcohol abuse by 0.5% of the sample; (6) health by 2.0% of the sample; (7) attendance by 1.0% of the sample; (8) family responsibilities by 8.2% of the sample; and (9) financial difficulties by 3.9% of the sample.

Few cases of problems are recorded in the files. However, the fact that 21.9% of the sample recorded that lack of skills was a problem is highly significant. As with the trainee sample, discrimination is rarely recorded as a problem and in this

Table 8. Type of Work Desired of a Selected Sample of Current and Former Trainees.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
WORK DESIRED	Not Stated	18.4
	Permanent	69.9
	Temporary	
	Anything	11.7
WORK PREFERRED	Not Stated	20.4
	Full-Time	77.6
	Part-Time	2.0
	Either	
SECTOR OF DESIRED EMPLOYMENT	Not Stated	32.1
	Industry	
	Service	16.3
	Construction	42.9
	Government	
	Anything	8.7

Table 9. Problems and Conflicts of a Selected Sample of Current and Former Employee/Clients.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
ROLE CONFLICTS	Yes	1.5
	No	
	Not Stated	98.5
SEPARATION FROM FAMILY	Yes	2.6
	No	
	Not Stated	97.4
DISCRIMI-NATION	Yes	.5
	No	
	Not Stated	99.5
LACK OF SKILLS	Yes	21.9
	No	
	Not Stated	78.1
DRUG AND ALCOHOL ABUSE	Yes	.5
	No	
	Not Stated	99.5
HEALTH	Yes	2.0
	No	
	Not Stated	98.0
ATTENDANCE	Yes	1.0
	No	
	Not Stated	99.0
FAMILY RESPONSIBI-LITIES	Yes	8.2
	No	
	Not Stated	91.8
FINANCIAL DIFFICUL-TIES	Yes	3.9
	No	
	Not Stated	96.1

sample, drug and alcohol abuse score with equal insignificance. Family concerns are reported by 10.8% of the sample, making such concerns highly important.

6.4.1.2.6 Observations

From the file data it is shown that most of the employee/clients are single males under 30 years of age. Over one quarter of the total number are under 20. Most have no dependents. Almost one half of the sample are designated as native with the majority of these speaking a native language. The majority have less than Grade 11 education and have no formal training in any particular skill. They are basically classified as unskilled labourers.

Most have an uneven unstable work history having had more than one job in the previous 12 months and working less than 10 of those 12 months. Many have been laid off and others have quit their jobs to move on. The majority earned less than $10,000 in the past year and had fairly constant hourly wages. Most have experience working on construction projects and have worked primarily in Fort McMurray, or other northern communities, with considerable experience in other provinces.

Almost all want full-time, permanent employment preferably in construction work. The major problem reported was their lack of skills.

6.4.1.3 Employment records - Employer A. The data for the employees have been categorized under five headings: (1) personal characteristics; (2) educational background; (3) work background; (4) type of work desired (work aspirations); and (5) problems and conflicts. Tables 11 through 15 present a diagrammatical illustration of the five respective data categories. The total number of files searched was 99.

6.4.1.3.1 Personal characteristics

All of these were native employees but their status was not designated in the file. As is illustrated in Table 10, 25.3% were regular employees and 73.7% were former employees. A high percentage (92.9%) were male with only 6.1% female. The majority of the sample was under 30: 9.1% under 20, and 54.5% between 20 and 30. Slightly over 35% are over 30 years of age: 18.2%, 31 to 35; 9.1%, 36 to 40; 4%, 41 to 45; 1%, 46 to 50; and 3%, over 50. A total of 1.1% did not state their age.

The majority of the employees were married or equivalent (60.6%) while 38.4% were unmarried. One per cent did not state their marital status. The majority (60.6%) had dependents: 19.2%, 1 or 2; 29.3%, 3 or 4; 12.1%, 5 or 6. The remaining 38.4% of the sample had no dependents. Again 1% did not respond. It was reported that 3% of the sample were single support parents.

Of those stating a language other than English, Cree, Chipewyan, Slavey, and French were listed. A second language was not stated by 25.3% of the sample. Those speaking Cree constituted 58.6% of the total sample; Chipewyan, 13.1%; Slavey, 2%; and French, 1%. Those listing a third language listed Cree in 1% of the cases, while French was listed for 6.1% of the sample.

The following skills were listed as assets in their work: speaking Cree, 37.4%; army training, 2%; trapping, 19.2%; boat experience, 1%; speaking Chipewyan, 10%; farming, 1%; and speaking Slavey, 2%. Many (27.4%) did not include such information.

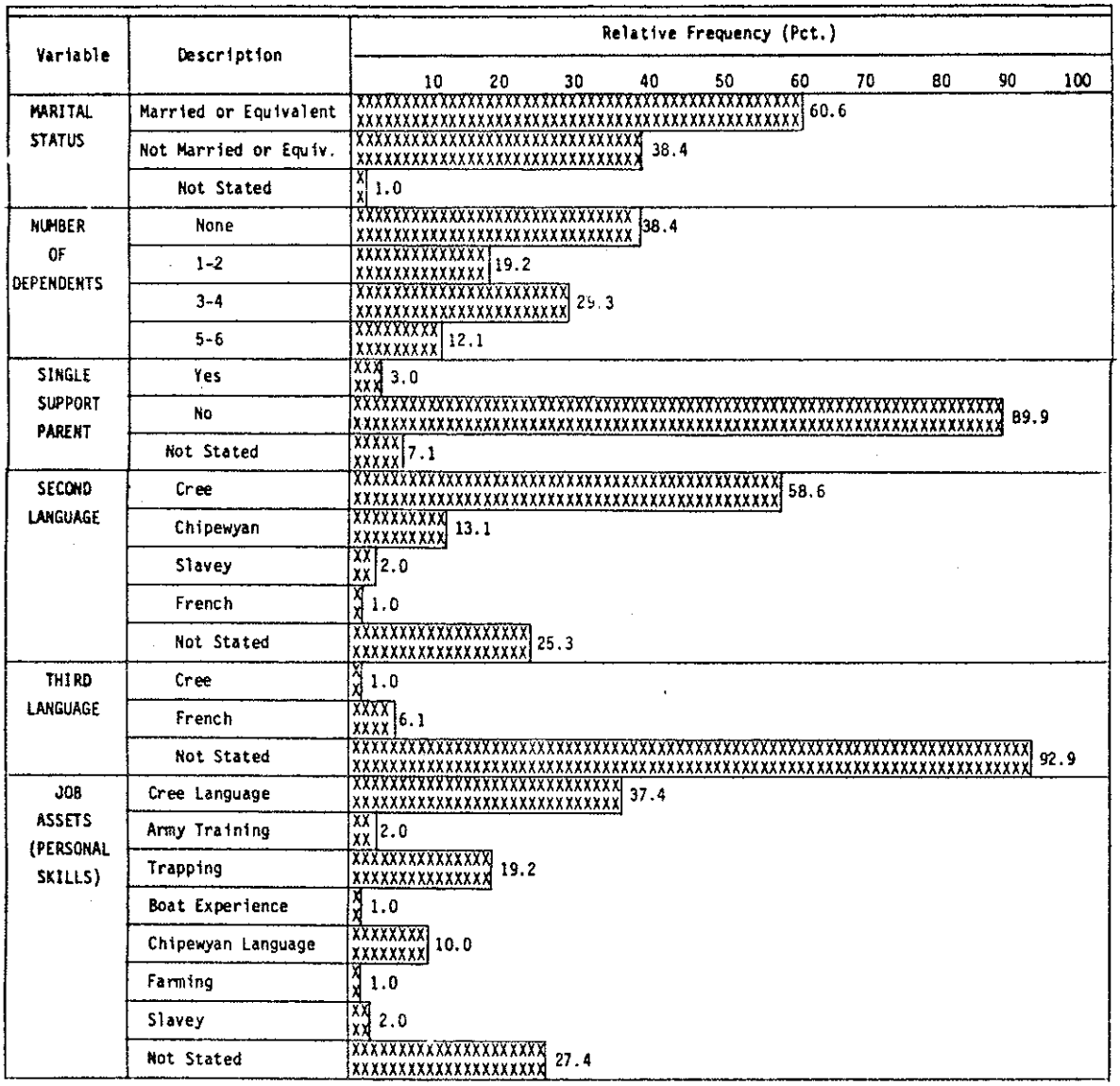
The original residences of the employees were: Fort Chipewyan (25.2%); Fort McMurray (15.1%); Lac La Biche-Kikino (11.1%); Fort McKay, (7%); Northwest Territories (5%); Manitoba (5%); Janvier (4%); Beaver Crossing (3%); Saskatchewan (3%); Grande Prairie (3%); Anzac (1%); British Columbia (1%); Ontario (1%); Standoff (1%); Slave Lake (1%); Good Fish Lake (1%); Meander River (1%); Fox Lake (1%); Calgary (1%); Paddle Prairie (1%); Athabasca (1%); Cold Lake (1%); and Jerome (1%). A total of 6.6% did not include their place of original residence.

Table 10. Personal Characteristics of Selected Sample of Current and Former Employees of Employer A.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
EMPLOYMENT CLASSIFICATION	Regular Employee	25.3
	Former Employee	73.7
	Not Stated	1.0
AGE	< 20	9.1
	20-30	54.5
	31-35	18.2
	36-40	9.1
	41-45	4.0
	46-50	1.0
	> 50	3.0
	Not Stated	1.0
SEX	Male	92.9
	Female	6.1
	Not Stated	1.0

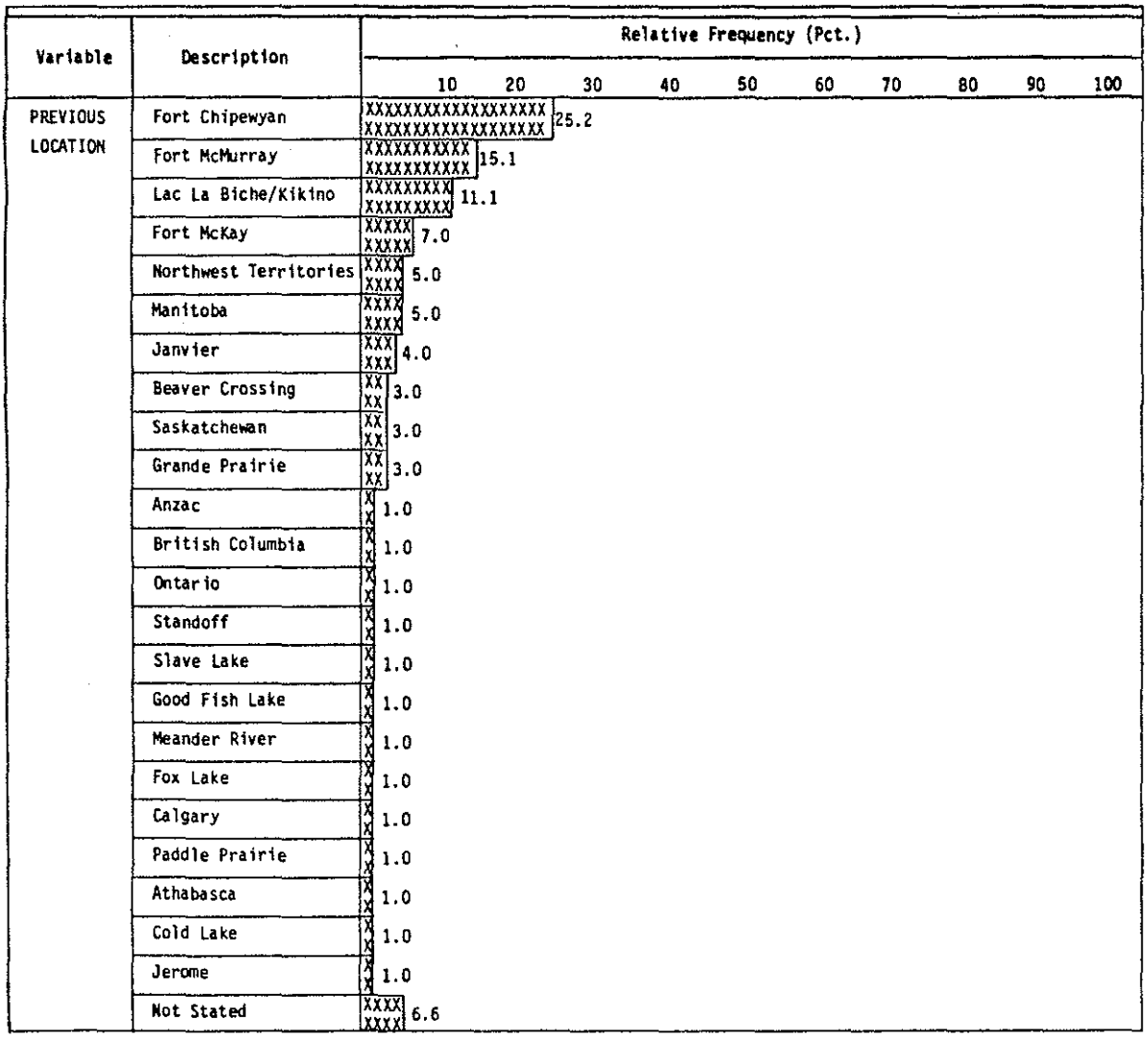
Continued . . .

Table 10. Continued.



Continued . . .

Table 10. Concluded.



6.4.1.3.2 Educational and training background

Table 11 illustrates the educational and training background of the selected sample of current and former employees of Employer A. The following levels of formal schooling were recorded: Grade 7 or less, 11.1%; Grade 8 or 9, 29.3%; Grade 10 or 11, 41.4%; Grade 12, 14.1%; and over Grade 12, 1%. Of those stating their training, only 1% reported having no formal training beyond school. The largest percentage (28.3%) have over six months on-the-job training while another 16.2%, one to six months on-the-job training. A further 22.2% reported job experience in a particular skill. Only 7.1% reported being certified while 9.1% have some formal training without certification. Another 2% reported having some upgrading.

As for their job classification and area of training, 41.4% were heavy equipment operators, and 22.2% tradesmen. Another 32.3% were unskilled labourers, 1% were clerical, and 2% were listed in miscellaneous categories.

Of the sample, 30.3% attended elementary schools in other northern centres; 19.2% in Fort McMurray; 19.2% in Fort Chipewyan; 16.2% in other provinces; 4% in rural Alberta; 2% at Fort McKay; 2% in Edmonton; and 1% in Calgary. Those who attended high school listed the location of their education to be: Edmonton (16.2%); Fort McMurray (12.1%); other northern centres (13.1%); other provinces (8.1%); Fort Chipewyan (2.0); and Calgary (2%).

The training of employees took place in the following areas: 19.2% at Fort McMurray; 10.1% at Edmonton; 5% in other provinces; 2% in other northern centres; 1% in Calgary; and 1% in rural Alberta.

6.4.1.3.3 Work background

As is demonstrated by Table 12, in the previous 12 months 38.4% of the sample were steadily employed (11 to 12 months), while 11.1% had moderately steady work (6 to 10 months). Another 10.1% reported irregular work (2 to 6 months) and a further 2% had sporadic employment. The remaining 36.4% reported the following:

Table 11. Educational Background of Selected Sample of Current and Former Employees of Employer A.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
FORMAL SCHOOLING	Not Stated	3.1
	< Grade 7	11.1
	Grade 8 or 9	29.3
	Grade 10 or 11	41.4
	Grade 12	14.1
	> Grade 12	1.0
TRAINING	Not Stated	14.1
	None	1.0
	Not Certified	9.1
	1 to 6 Months	16.2
	> 6 Months	28.3
	Upgrading	2.0
	Job Experience	22.2
	Certified	7.1
AREA OF TRAINING OR JOB CLASSIFICATION	Not Stated	1.1
	Heavy Equipment	41.4
	Trades	22.2
	Unskilled	32.3
	Clerical	1.0
	Miscellaneous	2.0
ELEMENTARY SCHOOL LOCATION	Not Stated	3.0
	Fort McMurray	19.2
	Fort Chipewyan	19.2
	Fort McKay	2.0
	Other North	30.3
	Edmonton	2.0
	Calgary	1.0
	Rural Alberta	4.0
	Other Provinces	16.2
	N/A	3.0
LOCATION OF HIGH SCHOOL	Not Stated	2.0
	Fort McMurray	12.1
	Fort Chipewyan	2.0
	Other North	13.1
	Edmonton	16.2
	Calgary	2.0
	Rural Alberta	2.0
	Other Provinces	8.1
	N/A	42.5

Continued . . .

Table 11. Concluded.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
LOCATION OF TRAINING INSTITUTION	Fort McMurray	19.2
	Other North	2.0
	Edmonton	10.1
	Calgary	1.0
	Rural Alberta	1.0
	Other Provinces	5.0
	N/A	61.7

2% not working; 6.1% with summer seasonal employment; 7.1% part-time; and the other 21.2% combining trapping or farming with their other employment.

It was revealed that 54.5% had one job over the previous 12 months; 16.2% had two or three jobs; 15.2% held no jobs; 1% had four or five jobs; and 1% had six or seven jobs. This was not stated by 12.2%.

Of the total sample, 53.5% reported having not been laid off in the last year. Another 12.1% had been laid off one or two times, while 2% had been laid off three or four times. In 32.3% of the sample, the question of layoffs was not applicable.

Only 16.2% of the sample reported belonging to a union, while 80.8% reported not belonging to a union. Union membership was not stated by 3.0%.

The beginning salaries were reported as follows: 3.1% at less than $5.00 per hour; 7.1% at $5.00 to $6.00 per hour; 20.2% between $6.00 and $7.00 per hour; 21.2% between $7.00 and $8.00 per hour; 34.3% between $8.00 and $9.00 per hour; 12.1% between $9.00 and $10.00 per hour; and 2% over $10.00 per hour. This compares with their latest salaries: 7.1% at less than $6.00 per hour; 5% between $6.00 and $7.00 per hour; 14.1% between $7.00 and $8.00 per hour; 46.4% between $8.00 and $9.00 per hour; 21.2% between $9.00 and $10.00 per hour; and 6% more than $10.00 per hour. In the latter case, 73.6% earned over $8.00 per hour as compared with 48.4% in the former case (beginning salary), indicating a rise in salaries in a large number of cases.

With respect to their income in the preceding twelve months, 69.9% did not state their income. However, of those who did provide the information: 1% earned less than $5,000; 6% earned $5,001 to $10,000; 12.1% earned $10,001 to $15,000; 6% earned $15,001 to $20,000; 4% earned $20,001 to $30,000; and 1% earned more than $30,000.

With regard to voluntary work interruptions: 31.3% were for a better job or retraining; 30.3% to trap or farm; 15.2%

Table 12. Work Background of Selected Sample of Current and Former Employees of Employer A.

Variable	Description	Relative Frequency (Pct.)
WORK HISTORY IN PRECEDING TWELVE MONTHS	Not Stated	2.0
	Steady (11-12)	38.4
	Moderately Steady (6-10)	11.1
	Irregular (2-6)	10.1
	Sporadic (< 2)	2.0
	Not Working	2.0
	Summer Seasonal	6.1
	Part-Time	7.1
	Trapping/Farming	21.2
NUMBER OF JOBS HELD IN TWELVE MONTHS	Not Stated	12.2
	None	15.2
	1	54.5
	2 or 3	16.2
	4 or 5	1.0
	6 or 7	1.0
NUMBER OF LAYOFFS IN TWELVE MONTHS	1 or 2	12.1
	3 or 4	2.0
	None	53.5
	N/A	32.3
UNION MEMBERSHIP	Not Stated	3.0
	Yes	16.2
	No	80.8
BEGINNING HOURLY WAGE (IN DOLLARS)	< $5.00/hour	3.1
	$5-6.00/hour	7.1
	$6-7.00/hour	20.2
	$7-8.00/hour	21.2
	$8-9.00/hour	34.3
	$9-10.00/hour	12.1
	> $10.00/hour	2.0

Continued . . .

Table 12. Continued.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
LAST OR TERMINATING HOURLY WAGE (IN DOLLARS)	< $6.00/hour	7.1
	$6-7.00/hour	5.0
	$7-8.00/hour	14.2
	$8-9.00/hour	46.4
	$9-10.00/hour	20.2
	> $10.00/hour	7.1
WORK INTERRUP-TIONS (VOLUNTARY)	Not Stated	12.1
	Child Care	1.5
	Illness	1.5
	Relocation	8.1
	Better Job	31.3
	Trapping	30.3
	Choice	15.2
WORK INTERRUP-TIONS (INVOLUN-TARY)	Not Stated	77.9
	Fired	2.0
	Laid Off	14.1
	Work Shortage	3.0
	Company Leaves	3.0
LAYOFFS SINCE EMPLOYMENT BEGAN	Not Stated	29.3
	None	51.5
	1 or 2	15.2
	3 or 4	4.0
	11 or 12	1.0
INCOME IN PRECEDING TWELVE MONTHS	< $5,000	1.0
	Not Stated	68.7
	$5,001-10,000	6.1
	$10,001-15,000	12.1
	$15,001-20,000	6.0
	$20,001-30,000	4.1
	> $30,000	2.0

Continued . . .

Table 12. Concluded.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
WORK EXPERIENCE (COMBINED TOTAL OF LAST THREE FILE LISTINGS)	Not Stated	4.1
	Government	3.0
	Service	17.2
	Resource	1.0
	Industry	2.0
	Construction	49.5
	Supervisory	3.0
	Agriculture	1.0
	Trapping	19.2
WORK LOCATION (COMBINED TOTAL OF LAST THREE FILE LISTINGS)	Not Stated	4.0
	Fort McMurray	37.4
	Fort Chipewyan	14.1
	Fort McKay	4.0
	Other Northern	15.2
	Edmonton	6.1
	Rural Alberta	4.0
	Other Provinces	15.2

as a matter of personal choice; 8.1% for relocation; 1% for reasons of child care; and 1% because of illness.

Involuntary work interruptions had the following causes: 2%, fired; 14.1%, laid off; 3%, work shortages; and 3%, as the result of the company leaving town. However, in 78.9% of the sample this category was not applicable.

Those responding to the question of layoffs since beginning employment revealed: (1) 51.5% had had no layoffs; (2) 15.2% had one or two; (3) 4% had three or four; and (4) 1% had eleven or twelve.

The general trends with regard to former work experience showed that employees had experience in construction (49.5%), trapping (19.2%), service industries (17.2%), government (3%), supervisory (3%), industry (2%), resource (1%), and agriculture (1%) in descending order of frequency. The former locations of employment were listed as follows: 37.4%, Fort McMurray; 15.2%, other provinces; 15.2%, other northern centres; 14.1%, Fort Chipewyan; 6.1%, Edmonton; 4%, Fort McKay; and 4%, rural Alberta.

6.4.1.3.4 Type of work desired

Table 13 illustrates the work aspirations of the selected sample of current and former employees of Employer A. The type of work desired by 90.9% of the sample was permanent employment. However, another 5.1% stated that they would take any work. Only 3% preferred temporary work. Full-time work was preferred by 92.9% of the sample with 3% looking for a part-time job and 3% satisfied with either. Industrial work was desired by 99% of the sample.

6.4.1.3.5 Problems and conflicts

Table 14 presents a diagrammatical illustration of the reported problems and conflicts of the selected sample of current and former employees of Employer A. The following problems were reported: (1) role conflicts by 6.1% of the sample; (2) separation from the family by 26.3%; (3) drug and alcohol abuse by 4% of the sample; (4) health by 13.1% of the sample; (5) attendance by 44.4%

Table 13. Type of Work Desired (Work Aspirations) of Selected Sample of Current and Former Employees of Employer A.

Variable	Description	Relative Frequency (Pct.)
WORK PREFERRED	Not Stated	1.0
	Permanent	90.9
	Temporary	3.0
	Anything	5.1
WORK PREFERRED	Not Stated	1.1
	Full-Time	92.9
	Part-Time	3.0
	Either	3.0
WORK PREFERRED	Not Stated	1.0
	Industrial	99.0

Table 14. Problems and Conflicts of Selected Sample of Current and Former Employees of Employer A.

Variable	Description	Relative Frequency (Pct.)
ROLE CONFLICTS	Not Stated	93.9
	Yes	6.1
SEPARATION FROM FAMILY OR COMMUNITY	Not Stated	63.7
	Yes	26.3
ALCOHOL OR DRUG ABUSE	Not Stated	96.0
	Yes	4.0
HEALTH	Not Stated	86.9
	Yes	13.1
ATTENDANCE	Not Stated	55.6
	Yes	44.4
FAMILY RESPONSIBILITIES	Not Stated	91.9
	Yes	8.1
FINANCE	Not Stated	90.9
	Yes	9.1

of the sample; (6) family responsibilities by 8.1% of the sample; and (7) finance by 9.1% of the sample. Neither discrimination nor lack of skills is reported. Family concerns account for 34.4% of cases and attendance is reported in 44.4% of cases. There may be a relationship between these two problem areas.

6.4.1.3.6 Observations

From the file data, it is shown that most native employees are married men and are under 30 years of age. The majority speak a native language. Some are trilingual. Over half of the sample have over Grade 10 education with 15.1% having Grade 12 or higher. Only 1% reported no formal training after school. Most had on-the-job training or job experience in a particular skill. The majority were classified as tradesmen or heavy equipment operators. About one third of the sample were designated as unskilled workers.

Almost unanimously, the employees preferred permanent, full-time employment in industry. Over half the sample were steadily employed in industry or combined their employment with traditional activities. Over half held only one job in the preceding year. A small portion had been laid off during the preceding year. Of those revealing their salary in the preceding year, most earned over $10,000. With regard to hourly wages, the beginning salaries for the majority were under $8.00 per hour, while the present salary for most was over $8.00 per hour. Most had experience in construction, trapping or service industries, having worked in northern centres in Alberta or other provinces.

The employees' original residences were located mainly in northern Alberta, with some coming from other provinces and the Northwest Territories. The representation from southern centres was insignificant. The employees received their elementary and high school education mainly in northern communities in Alberta. Further training was most frequently obtained in Fort McMurray or Edmonton.

Attendance was reported to be a significant problem for almost half the sample (44.4%) of employees, and was followed in importance by family concerns (34.4%), which may point to the existence of a relationship between the two variables. Further study in this area appears to be warranted.

6.4.1.4 Employment records - Employer B. The data for the employees has been categorized under five headings: (1) personal characteristics; (2) educational background; (3) work background; (4) work aspirations; and (5) problems or conflicts. Tables 15 through 19 illustrate, respectively, the personal characteristics, educational background, work background, work aspirations, and problems and conflicts of the employee and trainee sample examined. The total number of files searched was 102.

6.4.1.4.1 Personal characteristics

Table 15 identifies the personal characteristics of the selected file sample of current employees and trainees of Employer B.

Information as to the ancestry of the sample was not available in 96.1% of the cases reviewed. Where it was available, 2.9% of the sample were listed as native and 1% were identified as non-native. Treaty Indians constituted 2.9% of the sample, which served as the only designation as to native status. Nearly half (49%) of the sample were between 20 and 30 years of age, and 96.1% of the sample were male while 2% were identified as female. The majority (67.6%) of the members of the sample were married (or equivalent) while 30.4% were listed as being unmarried (or equivalent). Single support parents included 6.9% of the sample population. Of the sample, 30.4% have no dependents; 31.4% have one or two dependents; 25.5% have three or four dependents; and 4.9% have five or six dependents.

From the data available, in 95% of the cases sampled, no second language was identified. Where it was identified, 2% of

Table 15. Personal Characteristics of Selected Sample of Current Employees and Trainees of Employer B.

Variable	Description	Relative Frequency (Pct.)
ANCESTRY	Native	2.9
	Non-Native	1.0
	Not Stated	96.1
NATIVE STATUS	Treaty	2.9
	Not Stated	97.1
AGE	< 20	6.1
	21-25	26.7
	26-30	22.3
	31-35	21.2
	36-40	12.6
	41-45	3.0
	46-50	5.1
	> 50	2.0
	Not Stated	2.0
SEX	Male	96.1
	Female	2.0
	Not Stated	1.9
MARITAL STATUS	Married (or Equivalent)	67.6
	Not Married (or Equivalent)	30.4
	Not Stated	3.0
NUMBER OF DEPENDENTS	None	30.4
	1-2	31.4
	3-4	25.5
	5-6	4.9
	Not Stated	7.8
SINGLE SUPPORT PARENT	No	71.2
	Yes	6.9
	Not Stated	21.9
SECOND LANGUAGE	Cree	2.0
	Chipewyan	1.0
	French	2.0
	Not Stated	95.0
THIRD LANGUAGE	Arabic	1.0
	Chipewyan	1.0
	Not Stated	98.0
PREVIOUS LOCATION	Fort McMurray	95.1
	Not Stated	4.9

the sample spoke French, while 2% listed Cree, and 1% of the sample spoke Chipewyan as a second language. Tertiary languages identified included Arabic (1%) and Chipewyan (1%).

The location of 95.1% of the sample prior to their current employment was Fort McMurray.

6.4.1.4.2 Educational background

Table 16 identifies the educational background of the selected sample of current employees and trainees of Employer B.

The following levels of formal schooling were recorded for the sample reviewed: Grade 7 or less (2%); Grade 8 or 9 (17.6%); Grade 10 or 11 (34.3%); Grade 12 (30.4%); and over Grade 12 (9.8%).

A total of 18.6% of the sample had had no formal post-secondary institutional training. Of the remainder, 19.6% were identified as having had training without certification, while 15.7% were certified training program graduates. A further 8.8% of the sample had been given regular on-the-job training for less than six months; 1% had received this training for more than six months; 1% received specific task on-the-job training; and 2.9% had received academic upgrading.

The job classification of these individuals included: skilled industrial (34.3%); heavy equipment (20.6%); unskilled industrial (15.7%); clerical (2.9%); miscellaneous academic (2.9%); driver (2%); and vocational upgrading (1%).

6.4.1.4.3 Work background

Table 17 identifies the work background of the selected sample of employees and trainees of Employer B.

The majority of the sample (86.3%) were regular employees, while 6.9% were trainees. Nearly half the sample (47.1%) reported having steady employment during the twelve month period preceding their present employment. A total of 11.8% were listed as having been moderately, steadily employed (from between six and ten months);

Table 16. Educational Background of Selected Sample of Current Employees and Trainees of Employer B.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
LEVEL OF EDUCATION	Grade 7 or Less	2.0
	Grade 8 or 9	17.6
	Grade 10 or 11	34.3
	Grade 12	30.4
	> Grade 12	9.8
	Not Stated	5.9
LEVEL OF TRAINING	None	18.6
	Not Certified	19.6
	Certified Graduate	15.7
	Regular on-the-job < 6 months	8.8
	Regular on-the-job > 6 months	1.0
	Academic Upgrading	2.9
	Spec. Task on-the-job Training	1.0
	Not Stated	32.4
JOB CLASSIFICATION ON AREA OF TRAINING	Heavy Equipment	20.6
	Skilled Industrial	34.3
	Unskilled Industrial	15.7
	Clerical	2.9
	Driver	2.0
	Vocational Upgrading	1.0
	Miscellaneous Academic	2.9
	Not Stated	20.6

Table 17. Work Background of Selected Sample of Current Employees and Trainees of Employer B.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
EMPLOYMENT CLASSIFICATION	Trainee	6.9
	Regular Employee	86.3
	Not Stated	6.8
WORK HISTORY IN PREVIOUS TWELVE MONTHS	Steady Job	47.1
	Moderately Steady	11.8
	Irregular	10.8
	Not Employed	4.9
	Summer Seasonal	1.9
	Part-Time	2.9
	Not Stated	20.6
NUMBER OF JOBS HELD IN TWELVE MONTHS PRECEDING CURRENT EMPLOYMENT	None	23.5
	1	35.3
	2-3	11.8
	4-5	2.0
	Not Stated	27.4
REASONS FOR VOLUNTARY INTERRUPTIONS IN WORK HISTORY	Illness	5.9
	Relocation	17.6
	Retraining	18.7
	Personal	7.8
	Choice	5.9
	Not Stated	44.1
REASONS FOR INVOLUNTARY INTERRUPTIONS IN WORK HISTORY	Fired	2.0
	Layoff	19.6
	Work Shortage	4.9
	Company Left Town	1.0
	Dead-End Job	2.9
	Seasonal Employment	5.9
	Not Stated	62.7
NUMBER OF LAYOFFS SINCE BEGINNING CURRENT EMPLOYMENT	None	22.5
	1 or 2	15.7
	3 or 4	1.0
	9 or 10	1.0
	11 or 12	1.0
	Not Stated	58.8
NUMBER OF LAYOFFS IN PREVIOUS TWELVE MONTHS	None	29.4
	1 or 2	9.8
	3 or 4	1.0
	Not Stated	59.8

Continued . . .

Table 17. Continued.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
UNION MEMBERSHIP	Yes	71.4
	No	3.2
	Not Stated	25.4
BEGINNING HOURLY WAGE	Not Stated	19.9
	< $5.00/hour	22.6
	$5-6.00/hour	21.2
	$6-7.00/hour	19.4
	$7-8.00/hour	7.8
	$8-9.00/hour	9.1
	$9-10.00/hour	
	> $10.00/hour	
TERMINATING HOURLY WAGE	Not Stated	36.4
	< $5.00/hour	12.0
	$5-6.00/hour	4.0
	$6-7.00/hour	17.9
	$7-8.00/hour	10.1
	$8-9.00/hour	19.6
	$9-10.00/hour	
	$10-11.00/hour	
	> $11.00/hour	
INCOME FROM EMPLOYMENT IN TWELVE MONTHS PRIOR TO CURRENT EMPLOYMENT	Not Stated	68.7
	< $5,000	1.0
	$5-10,000	6.1
	$10,000-15,000	12.1
	$15,000-20,000	6.0
	$20,000-25,000	4.1
	> $25,000	2.0
SECOND TYPE OF WORK EXPERIENCE LISTED	Government	1.0
	Service	12.1
	Resource	1.0
	Industry	39.3
	Construction	22.1
	Supervisory	2.0
	Agriculture	3.0
	Not Stated	19.5

Continued . . .

Table 17. Concluded.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
THIRD TYPE OF WORK EXPERIENCE LISTED	Service	8.1
	Industry	19.1
	Construction	11.1
	Supervisory	2.0
	Agriculture	2.0
	Not Stated	57.7
LOCATION OF FIRST WORK EXPERIENCE LISTED	Fort McMurray	8.0
	Other Northern	2.0
	Edmonton	9.1
	Calgary	4.0
	Rural Alberta	11.1
	Other Province	43.2
	Not Stated	22.6
LOCATION OF SECOND WORK EXPERIENCE LISTED	Fort McMurray	7.0
	Edmonton	12.1
	Calgary	3.0
	Rural Alberta	12.1
	Other Province	41.3
	Not Stated	24.5
LOCATION OF THIRD WORK EXPERIENCE LISTED	Fort McMurray	3.0
	Other Northern	1.0
	Edmonton	9.0
	Calgary	1.0
	Rural Alberta	8.0
	Other Province	21.1
	Not Stated	56.9

10.8% reported irregular employment (from two to six months); and 2.9% of the sample were employed on a part-time basis. A further 4.9% were unemployed during the twelve month period under investigation.

A total of 35.3% of the sample had had one job in the twelve months prior to their present employment. Of the remainder, 11.8% had held two or three jobs and 2% held four or five jobs. A further 23.5% were unemployed during the twelve months prior to their current employment. No data were available on the average time between jobs for more than half the sample (52.9%). Of those from whom information was available, the average time between jobs was eleven weeks, or longer, in 23.6% of the cases reviewed. Reasons for voluntary interruptions in the work history of the sample included: relocation (17.6%); personal reasons (7.8%); retraining (18.7%); because of illness (5.9%); and by choice (5.9%). Reasons for involuntary work interruption included the following: company layoffs (19.6%); seasonal employment (5.9%); work shortage (4.9%); dead-end job (2.9%); fired (2%); and the employing company had left town (1%). No response to this question was listed for 62.8% of the sample since the question was either not applicable or the information required to respond was not available in the sampled files.

Since beginning employment, 22.5% of the sample have experienced no layoffs. A further 15.7% had had one or two layoffs. Information required to answer this question was not stated in 54.9% of the files examined. A total of 29.4% of the sample had had no layoffs in the previous twelve months, while 9.8% had experienced one or two layoffs. This information was not available from 48% of the files. The average length of layoffs in the previous twelve months was not stated in 50% of the files and this question was apparently not applicable for a further 45.1% of the sample. In the cases where this information was listed, 2% had experienced layoffs averaging three to four weeks in length.

A total of 71.6% of the sample were union members, while 3.9% were not. The terminating salaries from the last job held by

members of the sample prior to present employment were: less than $4.00 per hour (4%); $5.00 per hour or less (8%); $7.00 per hour or less (21.9%); and over $7.00 per hour (29.7%). This can be contrasted with the following salaries listed for members of the sample at the beginning of their current employment: less than $4.00 per hour (3.9%); $5.00 per hour or less (18.7%); $7.00 per hour or less (62%); and over $7.00 per hour (16.9%).

Income from employment in the twelve months preceding their application for employment with Employer B was: less than $7,500 (2%); between $7,500 and $10,000 (7%); between $10,001 and $15,000 (7%); and over $15,000 (5%). Data listing income in the previous twelve months was not available in 75.5% of the cases reviewed. Previous work experience (listed in descending order of frequency) included: industry, construction, service, and agriculture. The location of this previous employment included other provinces, rural Alberta, Edmonton, Fort McMurray, Calgary, and other northern centres in descending order of frequency.

6.4.1.4.4 Work aspirations

As Table 18 indicates, 86.3% of the sample desired permanent work. Full-time work was preferred by 87.3% of the sample, while 8.8% desired part-time work. A majority of the sample were interested in industrial work (66.7%). Other employment areas of interest to the members of the sample included: construction (14.7%); service industry (2%); and government (1%). A further 4.9% indicated that they were interested in any kind of work available.

6.4.1.4.5 Problems and conflicts

Table 19 shows that a majority of the sample (84.3% cited no problems and conflicts in their present job position. In 2.9% of the files, the existence of some problem or conflict was listed. Types of problems cited included: role conflicts (2%); separation from family (1%); discrimination (2%); lack of job-related skills (2.9%); drug or alcohol abuse (5.9%); illness or health problems (7.8%); attendance or lateness (2%); and family responsibilities (2%).

Table 18. Work Aspirations of Selected Sample of Current Employees and Trainees of Employer B.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
TYPE OF WORK DESCRIBED	Permanent	86.3
	Temporary	9.7
	Not Stated	4.0
WORK DESIRED	Full-Time	87.3
	Part-Time	8.8
	Not Stated	3.9
AREA OF WORK DESIRED	Service	2.0
	Construction	14.7
	Industry	66.7
	Government	1.0
	Anything	5.0
	Not Stated	10.6

Table 19. Problems and Conflicts of Selected Sample of Current Employees and Trainees of Employer B.

Variable	Description	Relative Frequency (Pct.)
		10 20 30 40 50 60 70 80 90 100
EXISTENCE OF PROBLEMS AND CONFLICTS	Yes	3.0
	No	97.0
ROLE CONFLICTS	Yes	2.0
	No	98.0
SEPARATION FROM FAMILY	Yes	1.0
	No	99.0
DISCRIMI-NATION	Yes	2.0
	No	98.0
LACK OF JOB-RELATED SKILLS	Yes	2.9
	No	97.1
DRUG OR ALCOHOL ABUSE	Yes	5.9
	No	94.1
ILLNESS OR HEALTH PROBLEMS	Yes	7.8
	No	92.2
ATTENDANCE OR LATENESS	Yes	2.0
	No	98.0
FAMILY RESPONSIBI-LITIES	Yes	2.0
	No	98.0

Few of the files document instances of racial discrimination, which is consistent with the findings drawn from the other samples. However, it must be noted that only 2.9% of the Employer B sample were listed as being of native ancestry, which might account for the apparent paucity of documented instances of discrimination. Illness or health problems and alcohol or drug abuse appear, from file data, to be comparatively more serious problems among the members of the sample.

6.4.1.4.6 Observations

File data indicate that most of the sample of employees of Employer B are married males and that nearly half are between the ages of 20 and 30. Most had between one and four dependents and were not single-support parents. File data did not indicate the race of members of the sample, nor their ability to speak a native language, except in a small minority of cases. The majority have a Grade 11 education or less, and less than half had received formal institutional or on-the-job training. However, only a small minority of the sample were classified as unskilled, industrial workers; most were listed as heavy equipment operators and skilled industrial employees.

Most have a reasonably stable work history having been steadily, or moderately steadily, employed from between six and twelve months of the previous year, and only a small minority had held more than one job during that period. Layoffs were the most frequently cited cause of unemployment among members of the sample although, in many cases, the data required to respond to this question were not available from the files reviewed. The majority of the sample are union members who earn less in hourly wages on the average than they did in their previous employment positions. Many have had prior industrial work experience and most had resided in Fort McMurray prior to their current employment, although a substantial minority had originally migrated from other provinces.

A substantial majority of the sample wanted permanent, full-time work in an industrial field. The most significant

problems and conflicts reported were illness and health problems and an incidence of alcohol or drug abuse among a small minority of the employees surveyed in the sample.

6.4.1.5 Sample population comparison. The following section compares the employee samples of trainees and employee/clients. The comparisons are made under the following headings: (1) personal characteristics; (2) educational and training background; (3) work background; (4) type of work desired; and (5) problems and conflicts. Not all of the individual comparisons are explicated. Only those results which beg further inquiry are considered. For complete comparisons, the reader is directed to the accompanying tables.

6.4.1.5.1 Personal characteristics

As can be seen from Table 20, the employee samples are almost totally male whereas almost one third of the trainee and employee/client samples were female. This point needs to be clarified by further study. Are the industrial jobs not attractive to native women? Do women not apply? Are women not hired for such jobs? Do the hiring practices discriminate against women? Are there social or cultural taboos against women working with large numbers of men?

Among the employee samples, over 60% were married and a similar number had dependents. This contrasts with both the trainee and employee/client samples which had 34.2% and 23%, respectively, married. Only 27.7% of the trainees had dependents and an even smaller percentage of the employee/clients reported dependents (16.8%). Therefore, the employee samples are significantly different from the other two samples in the number of married men with families employed. This, too, needs further study. Are there screening devices which work against the employment of single men? Does the industry provide services that encourage married men with families to seek work there?

Table 20. Comparison of Personal Characteristics of a Select Sample of Trainees, Employees/Clients, and Employees from Employer A and B.

Variable	Description	Relative Frequency (Pct.)			
		Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Age	Not Stated	.4	6.1	1.0	2.0
	< 20	21.2	26.0	9.1	6.1
	21-25	39.4	28.1	30.3	26.7
	26-30	19.0	16.8	24.2	22.3
	31-35	11.2	8.2	18.2	21.2
	36-40	3.7	7.7	9.1	12.6
	41-45	2.6	2.6	4.0	3.0
	46-50	1.1	2.6	1.0	5.1
	> 50	1.5	2.0	3.0	2.0
Sex	Male	68.0	74.0	92.9	96.1
	Female	32.0	24.0	6.1	2.0
	Not Stated	0.0	2.0	1.0	1.9
Marital Status	Married or Equivalent	34.2	23.0	60.6	67.6
	Not Married or Equiv.	63.6	65.3	38.4	30.4
	Not Stated	2.2	11.7	1.0	3.0
Number of Dependents	None	64.3	40.8	38.4	30.4
	1-2	14.5	16.8	19.2	31.4
	3-4	10.6	6.6	29.3	25.5
	5-6	2.6	2.6	12.1	4.9
	Not Stated	8.0	33.2	1.0	7.8
Single Support Parent	Yes	7.8	6.6	3.0	6.9
	No	78.1	49.5	89.9	71.2
	Not Stated	14.1	43.8	7.1	21.9
Second Language	Cree	3.7	30.1	58.6	2.0
	Chipewyan	1.5	8.7	13.1	1.0
	Slavey			2.0	0.0
	French	.4	3.6	1.0	2.0
	Chinese		.5		
	Ukrainian	.4	.5		
	German		.5		
	Not Stated	94.0	56.1	25.3	95.0
Third Language	Arabic		2.6		1.0
	French		3.1	6.1	
	Cree			1.0	
	Chipewyan				1.0
	Not Stated	100.00	94.3	92.9	98.0

Continued . . .

Table 20. Concluded.

Variable	Description	Relative Frequency (Pct.)			
		Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Ancestry	Native	19.7	48.5	100.0	2.9
	Non-Native	41.3	16.8		1.0
	Not Stated	39.0	34.7		96.1
Native Status	Treaty				2.9
	Not Stated	100.0	100.0	100.0	97.1

The majority of the employee samples (for Employer A, 63.6%; Employer B, 55.1%) were under 30 years of age. This is a smaller percentage than in either the trainees (79%) or the employee/clients (70.9%). Thus the employee samples contain a slightly larger complement of older men, which constitutes about one third of the sample. The reason for this needs to be explored.

6.4.1.5.2 Educational and training background

The accompanying table (Table 21) examines the educational backgrounds of the trainees, the employee/clients and the employee samples. The most striking aspect is the high percentage of trainees and employee/clients with no training beyond school (50.6% of trainees and 46.9% of employee/clients). Questions need to be asked with regard to in-plant training programs for employees and screening procedures for employment. Do only those with some training get hired? What level of training is minimum for an employee to be hired? Does the fact that all employees are initially put on training programs skew the results as to what training beyond school employees really have?

6.4.1.5.3 Work background

The accompanying table (Table 22) shows the comparison of work backgrounds of the trainees, employee/clients and the employee samples.

With respect to the employment in the last twelve months, the data from Employer A are unique in that those individuals who work in the industry part of the year and trap or farm for the remainder of the year are reported. Thus, according to the industry officials, these people are considered to be steadily employed even though they have more than the one job. Therefore, the 'steady' category should be expanded to include the 'trapping' category as well. When this is done, the combined percentage of employees who have been steadily employed becomes 59.6%, which is higher than all other groups. Part-time employment was high (7.1%) among the Employer A sample but not significant for the other groups.

Table 21. Comparison of Educational and Training Background of a Select Sample of Trainees, Employee/Clients, and Employees from Employers A and B.

Variable	Description	Relative Frequency (Pct.)			
		Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Formal Schooling	Grade 7	5.6	16.3	11.1	2.0
	Grade 8 or 9	26.4	28.6	29.3	17.6
	Grade 10 or 11	37.5	32.7	41.4	34.3
	Grade 12	19.7	10.2	14.1	30.4
	Grade 12	7.8	4.1	1.0	9.8
	Not Stated	3.0	9.1	3.1	5.9
Training	None	50.6	46.9	1.0	18.6
	Not Certified	24.2	14.8	9.1	19.6
	Cert. Grad.	13.0	10.7	16.2	15.7
	Regular on-the-job 6 months	2.2	.5	28.3	8.8
	Regular on-the-job 6 months	4.8	4.1	2.0	1.0
	Academic Upgrading	.4	1.5	22.2	2.9
	Job Experience	1.9	18.4	7.1	1.0
	Not Stated	3.0	3.1	14.1	32.4
Area of Training or Job Classification	Heavy Equip.	19.0	9.2	41.4	20.6
	Skilled Trades	36.1	13.8	22.2	34.3
	Unskilled	7.8	58.2	32.3	15.7
	Clerical	8.6	7.1	1.0	2.9
	Driver Training	6.3	5.6		2.0
	Upgrading	12.6			1.0
	Misc. Academic	2.6	2.0	2.0	2.9
	Traditional		1.0		
	Not Stated	7.0	3.0	1.1	20.6

Table 22. Comparison of Work Background of a Selected Sample of Current and Former Trainees, Employee/Clients and Employees of Employers A and B.

Variable	Description	Relative Frequency (Pct.) Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Work History in Preceding Twelve Months	Not Stated	25.7	15.3	2.0	20.6
	Steady (11-12 mo.)	29.4	25.0	38.4	47.1
	Moderately Steady (6-10 mo.)	23.4	19.9	11.1	11.8
	Irregular (2-6 mo.)	13.8	21.4	10.1	10.8
	Sporadic (2 mo.)	1.9	12.2	2.0	
	Not Working	4.5	3.6	2.0	4.9
	Summer Seasonal	.4	2.0	6.1	1.9
	Part-Time	1.1	.5	7.1	2.9
	Trapping-Farming			21.2	
Number of Jobs Held in Preceding Twelve Months	Not Stated	30.1	17.9	12.1	27.4
	None	12.3	14.2	15.2	23.5
	1	28.6	37.8	54.5	35.3
	2 or 3	26.4	26.5	16.2	11.8
	4 or 5	1.8	2.6	1.0	2.0
	6 or 7	.4	1.0	1.0	
	12 or more	.4			
Number of Lay-Offs in Preceding Twelve Months	None	41.6	27.6	53.5	29.4
	1 or 2	13.8	28.6	12.1	9.8
	3 or 4	1.1	3.6	2.0	1.0
	Not Stated	43.5	40.2	32.3	59.8
Number of Lay-Offs Since Beginning Employment	None	25.7	25.0	51.5	22.5
	1 or 2	8.6	32.7	15.2	15.7
	3 or 4	1.5	4.6	4	1.0
	Not Stated	36.8	37.7	29.3	58.8
Union Membership	Yes		9.2	16.2	71.4
	No		15.3	80.8	3.2
	Not Stated	100.0	75.5	3.0	25.4

Continued . . .

Table 22. Continued.

Variable	Description	Relative Frequency (Pct.) Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Work Interruptions (Voluntary)	Child Care	3.3		1.0	
	Illness	1.5	1.0	1.0	5.9
	Relocation	1.9	2.6	8.1	17.6
	Retraining or Better Job	76.6	15.9	30.3	18.7
	Trapping	2.6	5.6	31.3	
	Choice	2.6	18.4	15.2	5.9
	Personal	1.4	10.2		7.8
	Not Stated	11.2	46.4	12.1	44.1
Work Interruptions (Involuntary)	Fired	3.0	2.6	2.0	2.0
	Laid-Off	14.1	33.7	14.1	19.6
	Work Shortage	5.2	10.2	3.0	4.9
	Company Left Town	1.1	2.0	3.0	1.0
	Dead-End Job	2.2	1.5		2.9
	Seasonal Employment	2.2	1.0		5.9
	Problems with Management	.7	.5		
	Not Stated	71.4	48.5	77.9	62.7
Beginning Hourly Wage (in dollars)	Not Stated	100.0	35.2		19.9
	$<$ $5.00/hr.		33.7	3.11	22.6
	$5-6.00/hr.		12.2	7.1	21.2
	$6-7.00/hr.		6.7	20.2	19.4
	$7-8.00/hr.		5.6	21.2	7.8
	$8-9.00/hr.		4.6	34.3	9.1
	$9-10.00/hr.		.5	12.1	
	$>$ $10.00/hr.		1.5	2.0	
Terminating Hourly Wage (in dollars)	Not Stated	58.4	22.4	1.0	36.4
	$<$ $5.00/hr.	16.7	28.6	0	12.0
	$5-6.00/hr.	9.3	15.3	7.1	4.0
	$6-7.00/hr.	2.6	6.7	5.0	17.9
	$7-8.00/hr.	4.1	4.6	14.2	10.1
	$8-9.00/hr.	2.2	9.6	46.4	19.6
	$9-10.00/hr.	.7	8.2	20.2	
	$10-11.00/hr.	.7	1.5	7.1	
	$>$ $11.00/hr.	4.7	3.1		

Continued . . .

Table 22. Continued.

Variable	Description	Relative Frequency (Pct.) Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Income From Employment in 12 mos. Period Prior to Current Employment (in dollars)	Not Stated	49.0	32.1	68.7	79.0
	$5,000	14.9	30.6	1.0	2.0
	$5-10,000	16.3	19.4	6.1	7.0
	$10-15,000	13.0	9.7	12.1	7.0
	$15-20,000	3.0	8.2	6.0	5.0
	$20-25,000	1.9		4.1	
	$25,000	1.9		2.0	
First Type of Work Experience Listed	Not Stated	44.3	27.1	4.0	16.7
	Government	1.0	2.6	3.0	1.0
	Service	23.8	24.0	17.2	18.2
	Industry	10.8	11.2	2.0	32.0
	Construction	14.9	28.6	49.5	28.1
	Supervisory		.5	3.0	1.0
	Agriculture	.4	1.0	1.0	3.0
	Mining		2.0	19.2	
	Resource	4.8	3.1	1.0	
Second Type of Work Experience Listed	Not Stated	40.9	32.2	14.1	19.5
	Government	1.5	1.5	2.0	1.0
	Service	26.0	20.4	18.2	12.1
	Industry	12.3	9.2	4.0	39.3
	Construction	16.4	32.1	48.5	22.1
	Supervisory		.5	1.0	2.0
	Agriculture	.4	1.0	2.0	3.0
	Mining			9.1	
	Resource	2.6	3.1	1.0	1.0
Third Work Experience Listed	Not Stated	43.5	45.9	22.2	47.7
	Government	1.1	3.6	2.0	
	Service	23.4	12.2	11.1	8.1
	Industry	13.4	8.7	3.0	19.1
	Construction	17.5	26.0	47.5	11.1
	Supervisory		.5	1.0	2.0
	Agriculture	.4	.5	1.0	2.0
	Mining		.5	10.1	
	Resource	.7	2.0	2.0	

Continued . . .

Table 22. Concluded.

Variable Description		Relative Frequency (Pct.)			
		Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Location of First Work Experience Listed	Ft. McMurray	11.9	29.1	37.4	8.0
	Other North.	12.3	15.8	33.3	2.0
	Edmonton	3.3	7.1	6.1	9.1
	Calgary	.7	1.0		4.0
	Rural Alberta	4.1	2.6	4.0	11.1
	Other Prov.	7.4	13.3	15.2	43.2
	Not Stated	60.3	31.1	4.0	22.6
Location of Second Work Experience Listed	Ft. McMurray	14.5	26.5	32.3	7.0
	Other North.	7.0	17.9	31.3	
	Edmonton	9.7	6.6	4.0	12.1
	Calgary	1.9	1.5	1.0	3.0
	Rural Alberta	4.5	2.0	5.1	12.1
	Other Prov.	10.0	11.7	12.1	41.3
	Not Stated	52.4	33.6	14.1	24.5
Location of Third Work Experience Listed	Ft. McMurray	19.0	23.0	33.3	3.0
	Other North.	8.2	8.6	26.2	1.0
	Edmonton	11.2	5.1	3.0	9.0
	Calgary	2.1	2.0	3.0	1.0
	Rural Alberta	4.5	2.6	5.1	8.0
	Other Prov.	5.6	9.2	11.1	21.1
	Not Stated	49.4	49.5	18.2	56.9

The employee samples contained fewer moderately steady and irregular employees than occurred among the trainees or the employee/clients.

Only 22.1% of the Employer A sample were affected by involuntary work interruptions. Employer B employees as well as both the trainees and the employee/clients were affected to a greater extent by such interruptions. This presents a number of questions with regard to employee working conditions.

The reasons for voluntary work interruptions show some interesting differences between the employees and the other samples. The largest percentage of voluntary work interruptions occurred, for the Employer A employees, as a result of trapping. There is a similarity in the second largest category, which encompasses retraining and the search for a better job. All groups, especially the trainees, showed the importance of these reasons. Personal reasons and relocation account for the remaining reasons for voluntary work interruptions. The differences that exist between the employees and the other samples may exhibit the need for additional information for the trainees and the employee/clients, rather than any differences in the people involved. More complete information on the specific causes of voluntary work interruptions is needed before a conclusion can be made.

In terms of salaries, among the trainees, only 9.3% reported their last salary as over $8.00; among the employee/clients, 22.4%; and, among the employees of Employer B, 19.6%. This contrasts markedly with the reported latest salaries of Employer A where 73.7% earned over $8.00 per hour. This discrepancy may be a result of the data from Employer A being more current and, hence, at a higher rate than some of the data from the other groups collected since 1975. There is a need for more precise data on wage scales in industry. There needs to be information on the wages for particular jobs and the relationship of wages to training, education, and technical knowledge for particular jobs.

6.4.1.5.4 Type of work desired

As shown in Table 23, the type of work desired by the employee samples was permanent employment. This exceeds the preferences of the employee/clients. This may be the result of the lack of experience or confidence of the employee/clients or the increased experience of the employee with a permanent and secure job. Further study could clarify the matter. Full-time work was preferred by a higher percentage of the employee samples than employee/clients. This, too, requires further elaboration. Perhaps the most striking indication of the job satisfaction of the employees is the fact that most desired industrial work. The employee/clients showed a preference for construction work. This may reflect the attraction of "quick money" in the construction industry or a recognition by the employee/clients that they lack the qualifications to work in industry. More research on employee job satisfaction needs to be undertaken. Finally, the reader is reminded of the bias built in to file data when such issues as job satisfaction are considered. One must ask "Just what does this information tell us?"

6.4.1.5.5 Problems and conflicts

For both the trainees and the employee/clients, very few problems were reported in their records (see Table 24). For the employee samples, this information was more readily available. Drug and alcohol problems and health problems are higher for employees. Family responsibilities and attendance are concerns for all groups. Both trainees and employee/clients recorded problems which point to the importance of family responsibilities to the work place. The one striking difference between the trainees and the employee/clients and the employees is the question of lack of skills, which was the foremost concern of the former two groups and was virtually unreported in conjunction with the employees. This must be another reflection of the industry's policy which puts all people hired into continuous training programs, or perhaps of industry's hiring practices.

Table 23. Comparison of Type of Work Desired by a Select Sample of Current and Former Trainees, Employee/Clients, and Employees of Employer A and B.

Variable	Description	Relative Frequency (Pct.) Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Type of Work Preferred	Not Stated	98.1	18.4	1.0	4.0
	Permanent	1.9	69.9	90.9	86.3
	Temporary			3.0	9.7
	Anything		11.7	5.1	
Work Preferred	Not Stated	98.1	20.4	1.1	3.9
	Full-Time	1.9	77.6	92.9	87.3
	Part-Time		2.0	3.0	8.8
	Either			3.0	
Sector of Desired Employment	Not Stated	63.2	32.1	1.0	10.6
	Industry	17.1		99.0	66.7
	Service	9.3	16.3		2.0
	Construction	9.7	42.9		14.7
	Government				1.0
	Anything	.7	8.7		5.0

Table 24. Problems and Conflicts of Trainees, Employee/Clients, and Employers A and B.

Variable Description		Relative Frequency (Pct.)			
		Trainees	Employee/ Clients	Employees of Employer A	Employees of Employer B
Role Conflicts	Yes	3.3	1.5	6.1	2.0
	No				
	Not Stated	96.7	98.5	95.9	98.0
Separation From Family	Yes	4.1	2.6	26.3	1.0
	No				
	Not Stated	95.9	97.4	63.7	99.0
Discrimination	Yes	0.4	0.5		2.0
	No				
	Not Stated	99.6	99.5		98.0
Lack of Skills	Yes	9.7	21.9		2.9
	No				
	Not Stated	90.3	78.1		97.1
Drug and Alcohol Abuse	Yes	3.3	0.5	4.0	5.9
	No				
	Not Stated	96.7	99.5	96.0	94.1
Health	Yes	6.3	2.0	13.1	7.8
	No				
	Not Stated	93.7	98.0	86.9	92.2
Attendance	Yes	7.1	1.0	44.4	2.0
	No				
	Not Stated	92.9	99.0	55.6	98.0
Family Responsibilities	Yes	5.9	8.2	8.1	2.0
	No				
	Not Stated	94.1	91.8	91.9	98.0
Financial Difficulties	Yes	4.8	3.9	9.1	
	No				
	Not Stated	95.2	96.1	90.9	

The attendance policies of the industry need to be considered in relation to the concern of the employees for family responsibilities. The reasons for the high absenteeism rates need to be examined in light of the employees' responsibilities both at work and at home.

6.4.1.5.6 Conclusion

The employee sample differs from the other samples in this study in many important respects: sex, marital status, number of dependents, formal education, training, work experience, salary, and work preferences. Further study is recommended to determine the reasons for these differences.

6.4.2 Part Two: Cross-Tabulations to Identify Apparent Patterns in Employment and Training Programs.

The SPSS sub-program CROSSTABS was used to determine if the employment items varied between native and non-native samples. The following cross-tabulations were computed for both the trainees and employee/clients: (1) ancestry by schooling; (2) ancestry by training; (3) ancestry by employment history; (4) ancestry by number of jobs; (5) ancestry by involuntary interruptions in work history; (6) ancestry by voluntary interruptions in work history; and (7) ancestry by income. For the trainees, cross-tabulations were computed on ancestry by course, ancestry by performance, and ancestry by reasons for termination. For the employee/clients, computations were made on ancestry by work desired; ancestry by work preference; and ancestry by job preference. CROSSTABS were not computed for the employer samples because of the non-comparative nature of the samples.

Of the total sample of 296 trainees, 53 were identified by the given data as native, 111 as non-native and 104 could not be identified by ancestry. The unidentified sample will not be included in the following tabulations.

Of the sample of 195 employee/clients, 95 were listed as native and 33 as non-native. The remaining 67 of the sample could not be identified as native or non-native from the given data and, therefore, are not included in the following comparisons:

The categories "Not Stated" and "Not Applicable" have been omitted from the cross-tabulation results and, therefore, it may be assumed that the percentages remaining when the percentages listed are subtracted from 100% are in these two categories and are irrelevant to the analysis.

The results of the cross-tabulations are presented in Tables 25 to 28.

6.4.2.1 Ancestry by education. Over 50% of the samples, both native trainees and native employee/clients, had less than Grade 10 education. This is contrasted to 24.3% of the sample of non-native trainees and less than 10% of the non-native employee/clients. It is evident that the native trainees and employee/clients have lower educational levels than do their non-native counterparts. (see Table 25).

6.4.2.2 Ancestry by training. From the cross-tabulations (see Table 26), it is seen that native and non-native trainees have much less training than do native and non-native employee/clients. However, in all cases, natives have less training than do non-natives. The only instance in which natives surpass non-natives is in the certified category.

6.4.2.3 Ancestry by employment history. In order to compute employment histories, four descriptive categories were established: (1) steady (eleven to twelve months employed); (2) moderately steady (six to ten months employed); (3) irregular (two to six months employed); and (4) sporadic (less than two months employed).

Although there is a high incidence of "Not Stated" designations for the trainees, from the available evidence it would appear that native trainees' work experience is very weak. Only

Table 25. Educational Background by Ancestry.

		Trainees		Employee/Clients	
		Native	Non-Native	Native	Non-Native
Schooling	Grade 7	17.0%	4.5%	24.0%	3.0%
	Grade 8 or 9	41.5%	19.8%	36.8%	6.1%
	Grade 10 or 11	32.1%	37.8%	28.4%	39.4%
	Grade 12	7.5%	24.3%	3.0%	33.3%
	Grade 12 +	0.0%	12.6%	3.0%	15.0%
Training	No formal	75.5%	52.3%	48.4%	21.2%
	Some training	7.5%	26.1%	15.8%	21.2%
	Certified	9.4%	6.3%	12.6%	12.1%
	On-the-job<6 mo.	-	3.6%	-	-
	On-the-job>6 mo.	1.9%	8.1%	4.2%	6.1%
	Upgrading	-	-	2.1%	-
	Job Experience	3.8%	.9%	14.7%	39.4%

Table 26. Work Background by Ancestry.

		Trainees		Employee/Clients	
		Native	Non-Native	Native	Non-Native
Employment in Last 12 Months	11-12 mo. (steady)	7.5%	39.6%	20.0%	45.5%
	6-10 mo. (moderate)	13.2%	21.6%	15.8%	15.2%
	2-6 mo. (irregular)	19.8%	13.5%	28.4%	21.2%
	2 mo. (sporadic)	1.9%	1.8%	11.6%	12.1%
Number of Jobs in Last 12 Mos.	None	11.3%	11.7%	17.9%	12.1%
	1	22.6%	32.4%	36.8%	33.3%
	2 to 3	13.2%	30.6%	24.2%	42.4%
	4 to 5	1.9%	2.7%	2.1%	6.1%
	5	1.9%	.9%	1.1%	-
Work Interruptions (Involuntary)	Fired	5.7%	2.7%	2.1%	-
	Laid Off	9.4%	15.3%	29.4%	51.5%
	Work Shortage	9.4%	4.5%	8.4%	6.0%
	Company Left	-	1.8%	2.1%	3.0%
	Dead End	-	3.6%	2.1%	3.0%
	Seasonal	3.8%	2.7%	1.0%	-
	Management Hassle	1.9%	-	1.0%	-
Work Interruptions (Voluntary)	Child Care	3.8%	1.8%	-	3.0%
	Illness	-	.9%	2.1%	3.0%
	Relocation	-	2.6%	8.4%	15.1%
	Better Job	1.9%	2.7%	5.2%	6.0%
	Retraining	71.7%	79.3%	6.3%	15.1%
	Pregnancy	-	-	2.1%	-
	Personal	-	-	12.6%	6.0%
	Choice	-	3.6%	17.8%	18.1%
Income in Last 12 Months	$0-1,000	2.0%	1.0%	12.0%	3.0%
	$1,100-5,000	23.0%	12.0%	31.0%	29.0%
	$5,100-10,000	8.0%	26.0%	23.0%	25.0%
	$10,100-15,000	2.0%	10.0%	6.0%	21.0%
	$15,100+	-	9.0%	6.0%	6.0%

20.7% have worked over six months of the last twelve months. In contrast, over 60% of the non-native sample of trainees have worked more than six months in the last year.

The employment histories of the native employee/clients indicate a stronger work background than among the native trainees. Over 35% of the native sample worked six months or more in the past year; 60% of the non-natives. Again, the high number of "Not Stated" category for the native sample needs further study.

6.4.2.4 Ancestry by number of jobs. The category of number of jobs in the last year further illuminates the employment picture. Here again, a high number of "Not Stated" answers appeared. However, it can be seen that an almost identical percentage of native and non-natives held no job in the preceding year. A higher percentage of non-natives (both trainees and employee/clients) than their native counterparts have had more than one job in the last year. From these two items, it would appear that most natives must have had one to three short-term jobs in the last year.

6.4.2.5 Ancestry by work interruptions (involuntary). Layoffs are a greater reason for work interruptions for non-natives than natives and for employee/clients more than for trainees. Natives are more influenced by firings, work shortages, seasonal jobs and management hassles than are non-natives.

6.4.2.6 Ancestry by work interruptions (voluntary). As would be expected, the majority (over 70%) of trainees interrupted their work for retraining. Both native and non-native employee/clients show a similar set of reasons for leaving employment: choice, personal, relocation, retraining, and better employment. It might be speculated that these factors may be aspects of "upward mobility" and dissatisfaction with existing conditions.

6.4.2.7 Ancestry by income. This analysis, too, is complicated by a lack of data. However, it is obvious that the annual salary of non-natives was higher than that of natives. Of native trainees, only 2% had a salary over $10,000. The native employee/clients had 12% with salaries over $10,000. However, this is still far beyond the non-native samples with 19% of the trainees and 27% of the employee/clients reporting annual salaries over $10,000 in the preceding year.

At the other extreme, the native samples had a larger proportion of their members with salaries under $5,000. Among the trainees, 25% of the natives were under $5,000 contrasted to 13% of the non-native sample. Among the employee/clients, 43% of the natives received under $5,000 while 32% of the non-natives were in this position.

To summarize: the native samples have lower educational levels, less training, less steady work experience, and lower salaries in the last twelve months than the non-native samples.

6.4.2.8 Employment preferences by ancestry. Three cross-tabulations were computed to compare the employment preferences of the native sample with those of the non-native sample (see Table 27). The native sample among the employee/clients indicated their preference for full-time, permanent work. In both these categories, the native percentages were slightly higher than the non-natives. The native sample had similar job preferences to those of the non-native group. All agreed that the construction jobs were the most desirable, then service and industry positions. It is significant that jobs in government and resource industries were not favoured by either group.

These results throw doubt on the assumption that native people in the oil sands region prefer casual, seasonal, resource-based occupations.

6.4.2.9 Training programs by ancestry. Cross-tabulations were made on course, course performance and reasons for course termination, among the native and non-native trainees. From Table 28,

Table 27. Employment Preferences.

		Employee/Clients	
		Native	Non-Native
Work Desired	Full-Time	82.1%	81.8%
	Part-Time	2.1%	3.0%
	Either	4.2%	6.1%
Work Preference	Permanent	77.9%	75.8%
	Temporary	3.2%	9.1%
	Casual	1.1%	-
	Anything	7.4%	9.1%
Job Preference	Service	18.9%	12.1%
	Construction	46.3%	60.6%
	Industry	16.8%	12.1%
	Government	1.1%	-
	Resource	1.1%	3.0%
	Anything	9.5%	3.0%

Table 28. Training Programs by Ancestry.

		Trainees	
		Native	Non-Native
Course	Industrial Worker	30.2$	4.5%
	Academic Upgrading	28.3%	9.0%
	Business Education	7.5%	4.5%
	Motor Mechanics	7.5%	6.3%
	Welding	5.7%	10.8%
	Pipe Trades	3.8%	10.8%
	Earth Moving	3.8%	17.1%
	Carpentry	3.8%	4.5%
	Small Engine	3.8%	.9%
	Truck Transport	1.9%	7.2%
	Business Administration	1.9%	-
	Front End Loader	-	4.5%
	Millwright	-	3.6%
	Backhoe	-	3.6%
	Construction	-	3.6%
	Early Childhood	-	2.7%
	Cooking	-	.9%
Course Performance	Successful	47.2%	81.1%
	Not Successful	49.1%	14.4%
	Not Stated	3.7%	4.5%
Course Termination (Reasons)	Completion	47.2%	81.1%
	Absenteeism	15.1%	-
	No Interest	3.8%	2.7%
	Behaviour	1.9%	.9%
	Personal	11.3%	4.5%
	Ability	3.8%	-
	Medical	3.8%	1.8%
	Program Change	1.9%	-
	Employment	-	.9%
	Other	1.9%	2.7%

it is clear that the majority of native trainees are enrolled in the two pre-employment programs--Industrial Workers' Course and Academic Upgrading. This is in contrast to the non-native sample, which shows that non-native trainees are spread evenly across the various areas of study.

As can be seen, 47.2% of natives successfully completed their courses as compared with 81.1% of non-natives. Similarly, 49.1% of natives were not successful while 14.4% of non-natives did not succeed.

Reasons for termination of courses for native trainees were: successful completion, 47.2%; absenteeism, 15.1%; no interest, 3.8%; behaviour, 1.9%; personal, 11.3%; ability, 3.8%; medical, 3.8%; program change, 1.9%; and other, 1.9%.

Reasons for termination of courses for non-native trainees were: successful completion, 81.1%; no interest, 2.7%; behaviour, 0.9%; personal, 4.5%; medical, 1.8%; employment, 0.9%; and other, 2.7%.

A comparison of these two sets of reasons shows that absenteeism is a very significant cause of termination among natives, but does not even appear as a reason for non-native termination. Personal reasons which are not enumerated, account for another 11.3% of the reasons of natives' terminations. These two categories deserve further study. As some of the literature has pointed out, enumeration of absences is insufficient. It is important to know why there were so many absences. The large percentage in the "personal" category similarly masks the particular problems which were faced by the native drop-outs.

In summary, native trainees are enrolled primarily in pre-employment programs. They have a low success rate and, in most cases, are terminated for absenteeism or personal reasons.

6.4.2.10 Identify apparent patterns in employment and training programs. The following were the apparent patterns and/or trends in employment and training programs suggested by the file analysis. It is to be emphasized that these are general trends taken from an

analysis of files which is a very limited source and for which there was a great deal of missing information. However, these general trends are listed in that they might provide the basis for testable hypotheses in a subsequent study:

1. Native trainees and native employee/clients have lower educational levels than their non-native counterparts;
2. Few members of either the trainees or employee/clients record being union members;
3. Layoffs may affect non-natives more than natives;
4. The yearly income of the native sample is considerably lower than the yearly income of the non-native sample;
5. Both natives and non-natives desire permanent, full-time employment;
6. The majority of both natives and non-natives prefer construction work;
7. The majority of both native and non-native trainees and employee/clients have no formal training beyond school;
8. The most frequent reasons for leaving a job are: retraining, personal, choice, and relocation for both natives and non-natives;
9. Non-natives have a higher incidence of steady employment than do the natives;
10. Significant problems for both groups are lack of skills and family concerns;
11. Natives have a significantly lower successful completion rate in training programs than do non-natives;
12. The majority of native trainees are enrolled in two pre-vocational programs, i.e., Industrial Workers' Course and Academic Upgrading, while the non-natives are enrolled in all the various subject areas; and
13. Absenteeism is the major reason for the termination of a course by the native sample.

6.4.3 Part Three: Identify Factors which Appear to Facilitate or Impede the Effectiveness of Training/Employment Programs and Employment of Native People.

6.4.3.1 Facilitators. The results of the file analysis of the industrial employees suggest the following facilitators to native employment. These facilitators are not suggested as answers to the question of what facilitates native employment but are rather stated in that they provide hypotheses which may be tested in a future study of native employment patterns in the Athabasca Oil Sands:

1. On-the-job training programs mitigate against the problem evident in the trainees and the employee/clients, i.e., lack of skills;
2. Counselling services, which serve the employee as family member as well as worker, serve to help in the adjustment to the work situation since family responsibilities are the second most frequently mentioned concern;
3. The encouragement of dual employment by the company brings workers into industry who work in the traditional employment part of the year and in the industrial setting for the rest of the year. This provides year-round employment for the individual and is not at the expense of his traditional expertise;
4. Original residence in the oil sands region appears to be an advantage as over 80% of the employee sample were originally from the area. This finding is compatible with the company's zone hiring policies wherein positions are filled by qualified residents of the area before recruiters look elsewhere; and
5. Other job experience, not necessarily related to the oil sands industries, is an asset to employment. For

example, experiences in farming, trapping, working on the boats, in the army, etc. are listed as valuable work experiences for employment in the industry.

6.4.3.2 Impediments. To date, the results of the file data have suggested the following impediments to the effectiveness of training/employment programs and employment of native people. These suggested trends could serve as testable hypotheses for a subsequent study using other data:

1. Attendance problems lead to the termination of classes for native people. Poor attendance is a cause for concern in the employment of native people in industry as well. Since industry is concerned with efficiency and productivity, regular attendance by workers is a perennial problem;
2. A general lack of skills leads to the loss of employment for native people;
3. Upgrading does not appear to facilitate employment;
4. Pre-employment programs do not appear to aid in the employment of native people in the industry;
5. Family responsibilities and personal concerns account for termination of training or employment in many cases;
6. Lack of skills is accompanied by a low educational level in most native employee/clients;
7. Union affiliation does not appear to be advantageous in the acquisition of jobs in the industry by native people; and
8. It appears that being female is an impediment to getting a job in industry. This may be the result of the type of job available, the training involved, or the screening procedures. More study is recommended.

6.4.4 Part Four: Identify the Ambiguities and Gaps in the File Data.

The following gaps and ambiguities have been identified:

1. Ancestry is not stated on most files;
2. Categorization of native people by status is not contained in the files;
3. Original residence or home address is not available;
4. Few problems or conflicts are actually recorded in the files;
5. Follow-up data are not kept;
6. Data regarding single-support parents or former social assistance recipients are not available;
7. The significance of the large number of non-responses to union membership is confusing. More data are needed for clarification;
8. The file data and coding sheets were not compatible with regard to marital status. The existence of "Other" as a category in the files clouded the designation of married (or equivalent) or unmarried (or equivalent); and
9. No comparable non-native sample was available for comparison with the native employees.

7. ANNOTATED BIBLIOGRAPHY

Adams, D. et al. March, 1971. Report of the Michigan Interim Action Committee on Indian Problems. Lansing, Mich. 40 pp. ERIC ED111585.

Employment recommendations call for: in-service training of "Michingan Concentrated Employment Programs (MCEP)" staff, revision of the Bureau of Indian Affairs' relocation procedures, and co-ordination between program development and the Inter-tribal Councils of Michigan. Economic development with skill training focussing on specific non-reservation areas. Educational recommendations call for a needs assessment in the federal and state systems.

Anders, G. 1968. Northern industrial development and the relevance of Keynesian policies on unemployment. Symposium on the higher latitudes of North America. Socio-Economic studies in regional development. Boreal Institute, Edmonton, Alta. Occ. Pub. 6. pp. 1-10.

Two factors characterize the present employment situation in the Northwest Territories -- high native unemployment and a high degree of mechanization with high wages for transient white southern operators. It is the contention of this paper that the native unemployment situation can only be solved "on-the-site," if, in addition to existing training programs, present or prospective employers in the North can be assured of freedom in the setting of regulations, the changing of wage rates and only if long-term, large-scale welfare schemes are excluded as solutions.

Berger, T. 1977. Northern frontier, northern homeland. Report of the Mackenzie Valley pipeline inquiry. Vol. 1. Ottawa. 213 pp.

Blume, P.R. May 1968. An evaluation of institutional vocational training received by American Indians through the Muskogee, Oklahoma area office of the bureau of Indian affairs, Stillwater, Oklahoma: University Press, Oklahoma State, pp. 261. ERIC ED023862.

The adult vocational training received by Indians was evaluated to determine the benefits of institutional training programs and to develop manpower policy recommendations. Criteria for evaluation included employment experience, income, labour force attachment and benefit cost rates. The sample consisted of 220 of 670 Indians who received adult vocational training. Some trainee characteristics were: (1) trainees were better educated

than most Indians; (2) employment and income levels were low; (3) there was a high non-completion rate. However, training completion resulted in an average salary income increase of $1,929, 3½ additional months of employment and a social cost benefit ratio of 2.30. The study revealed the basic assumptions of educators that vocational education is equivalent to shop education; vocational education is for the "less able", and that academic education and vocational education present an either/or choice for Indians.

Born, D. O. 1970. Eskimo education and the trauma of social change. Social Science Note 1, Ottawa: Department of Indian Affairs and Northern Development - Northern Science Research Group.

Born introduces the concept of intermediate adaptation which involves commitment of both native people and others to planned change, implies that the end result should be a relatively stable but not static socio-economic condition, and presupposes a compromise adjustment - kind of "cultural half-way house". Successful adaptation programs are described as programs of planned change, undertaken only with the consent and co-operation of the native people and that go only as far as the native community permits. As well, consideration should be given to Eskimo preferences in the change process. In essence, intermediate adaptation is referred to as an on-going process of satisfactory adjustment between dominant and subordinate societies in which the minority group is encouraged to maintain its identity.

Burgess, H. 1966. High school drop-ins. North. Sept. Oct.: 12-15.

In 1964, the Department of Indian Affairs began an Apprentice Training Program in the Northwest Territories to provide pre-apprenticeship training in all trades to people with a low academic background. The anticipated length of training was a three-year apprenticeship with six weeks of theory. The credential received upon completion was a beginner's certificate. The expected income at completion was 50% of a journeyman's wages for the specific trade. The training was not job-oriented and did not provide for job guarantees upon successful completion.

Carr, Wm. D. and Assoc. 1968. The Yukon economy: its potential for growth and continuity. Dept. Ind. Affairs Northern Devel. Vol. 1. Final Report. Ottawa.

With respect to native employment, the report contained information that, as of 1961, 426 native people were in the

labour force -- 348 men in positions as labourers, fishermen, trappers or service workers; and 78 women mostly involved in the service industries. These occupations indicate that the native people are ill-equipped for industrial work and training is needed. It is recommended that mining companies undertake familiarization and training programs for their native workers and development opportunities for them to enjoy their own culture and their own friends during the lonely period of adjustment. Further, a special employment service for native people should be set up and good housing for native people needs to be built in or near centres of employment.

Christensen, L.C. and E.J. Niederfrank. May, 1971. Economic and human development on the Fort McDermott Indian Reservation of Nevada. Progress Report on a Pilot Project. unpublished. ERIC ED073876. 19 pp.

In 1967, a number of program objectives were decided upon to aid in the struggle for economic generation on this economically deprived reservation. The programs consisted of, in part, courses in adult education, especially vocational training, and in the development of industries and commerical businesses on the reservation. A reservation development corporation was formed. Pacific Western Systems Inc. has set up a plant which employs 14-28 Indians, and plans expansion to approximately 50 employees. Training was with state assistance but no information is included regarding staffing or training. The effects and conclusions included: (1) there was some overspending but this was curtailed with counselling; (2) there is evidence of more personal and social stability; (3) the fact that the industrialization was a result of Indian initiative is seen as essential to its success; (4) the economics of the situation demand the involvement of both public and private sectors; (5) white management is seen as necessary; (6) the autonomous Development Corporation works better than the Tribal Council; (7) the democratic process does not work as smoothly as in white society; (8) three or four months are required for proper work habits to develop; and (9) there are obvious economic gains for Indians and society.

Conger, D. Sept. 1973. Methods for human resource development, Prince Albert. Training, Research and Development Station. ERIC ED088519. 28 pp.

A description is provided of the training and counselling materials and methods prepared by the Saskatchewan NewStart and Training, Research and Development Station. Following a brief review of the concept of social intervention, summary descriptions are provided of nine adult

education courses. These are: (1) Life Skills, which focusses upon effective problem-solving behaviour; (2) Fluency First, a course in English for illiterate adults who lack the background needed to learn to read and write; (3) Fluency Second, a listening and speaking course for those who can already read a second language; (4) Basic Literacy for Adult Development (BLADE), which teaches communications and math content from grades 1-4; (5) Learning Individualized for Canadians (LINC), which extends BLADE through grade 10; (6) Small Business Management, for those of Indian ancestry; (7) Creating a Career, designed to help people prepare career plans; (8) Generic Skills which aims to develop academic reasoning, interpersonal and manipulation skills; and (9) Socanics, which prepares skilled paraprofessionals for work in social institutions. Information is also presented on the preparation of instructional firms, on materials for sale and on the development of new training methods.

De Long, J.W. et al. August 1973. Manpower training program outcomes: Indian and Rural Whites in South Dakota. ERIC ED078998. 15 pp.

Two types of training programs are evaluated: (1) Job Opportunities in the Business Sector and (2) Manpower Training and Development Act Programs. Both are for disadvantaged trainees. The criterion to measure success is program completion. Findings indicate five variables associated with race; (2) race - Indians were less successful than other disadvantaged persons; (3) disadvantagedness was a disadvantage; (4) formal educaton improved the chances of completing the course; (5) previous employment was an advantage. Similarly, in the job program, being disadvantaged was a disadvantage and the length of previous employment helped. In conclusion, it is stated, "Through differential socialization and environmental experiences, the perpetuation of social classes tends to be maintained". Consequently when a person reaches adulthood, social class in status grouping has been an important factor in influencing occupational choices and chances.

Deprez, P., and C. Sigurdson. December 1969. The economic status of the Canadian Indian: a re-examination. Winnipeg: Centre for Settlement Studies, University of Manitoba, Series 2, Research Reports, No. 1.

This paper examines five case studies of Indian training programs to determine the underlying principles and policy determinants. After examining the Dominion Bridge, Anglo-Rouyn, Ninna Enterprises, Moose Lake Woodland Training Program, and Monarch Garment Factory, the following conclusions

are put forward: (1) Indians' attention and work is as good as any other group; (2) Indians will work outside of the traditional style; (3) Indians can make adaptations but some actions taken by whites to facilitate adaptation are detrimental (particularly attempts to educate and in training-in-industry); (4) education is only effective if Indians can identify with the goals; (5) training-in-industry is not a necessary condition for adaptation of Indians into the industrial economic environment; (6) success is the inverse function of formal training in these examples; (7) in some cases it may be that training presents the problems which an Indian will have to face in an amplified dimension, discouraging him more than encouraging him by presenting difficulties where none exists in reality; (8) formal education may be seen as an obstacle as it tends to raise expectations which Indians doubt will ever be fulfilled; (9) in isolated areas, education has greater impact and an Indian has higher expectations of white society; (10) study shows education is not a necessary pre-condition for economic transition; (11) employment should be first priority - then counselling and education; (12) talented people within the community should be used to mobilize the Indian work force and initiate enterprises.

Duran, E. C., and J.A. Duran, Jr. 1973. The Cape Croker Indian Reserve Furniture Factory Project. Human Organization, Vol. 32, #3, pp. 231-242.

This article examines the reason for the failure of the Cape Croker Indian Reserve Furniture Factory. Commenced in 1964 with the aid of the Department of Indian Affairs and Northern Development and the Indian-Eskimo Association, the ultimate objective was to set up a manufacturing business producing wooden furniture (to employ the reserve population) on the reserve. Duran and Duran attribute the failure of the enterprise to: lack of training for the management in business skills; the absence of the teaching of accounting and marketing techniques; inadequate equipment and buildings; and a relatively small amount of Indian involvement in the planning and operating.

The following recommendations were presented: (1) white leaders must be willing to make changes in their programs and adapt them to the particular need of individual reserves undertaking economic development; (2) traditional provincial training courses designed to fit people into specific job classifications in existence should not be used for innovative program development; (3) recognition should be given to individual differences, natural inclinations and talents which should be utilized for mutual benefit; (4) training for training's sake should be avoided and skills obtained should be useable; (5) there is a need for constant reciprocal communication between Indians and officials.

Elias, P. D. December 18, 1975. Certain employment patterns in the Northern Manitoba industrial sectors of hydro, construction, mining, and provincial government administration. Winnipeg: Planning Secretariat.

This study examines the manpower projections within the various sectors in Northern Manitoba. It further analyzes the socio-economic parameters of the jobs, comparing the needs of the industries with the qualifications of northern residents. Finally, actual barriers to the employment within these industries of northern native people are discussed. Solutions suggested are: (1) employers must be forced to justify or reject educational qualifications; and (2) adequate job performance should be a standard for employment. It is concluded that, in Northern Manitoba, the four main sectors absorb about 4% of the labour force of northern communities and these northern communities and northern residents receive little benefit from northern wealth.

Farnsworth, J. M. April, 1976. Native employment in a frontier region. No publisher or place of publication. ERIC ED124317. 15 pp.

By employing southern strategies and preconceptions to develop the north, southern Canadians have complicated northern Canadian development problems. Assuming that the only recognizable work is "paid" work and that welfare recipients do not want to work, southern Canadians have failed to recognize the inherent relationship between northern structural factors and the rate of participation in the work force. Factors contributing to the lack of development in the north include: (1) marginality of the environment; (2) the disruptive effects of southern civilization (traditional sharing patterns have been altered and learning experiences have been changed from a land to an academic orientation); and (3) the lack of paid wage opportunities. Even though the Canadian transportation network cannot yet accommodate integration of the two economies, there are currently non-economic motives at work to promote such integration. Emphasizing adaptation of established southern patterns to the northern environment, the potentials for northern development might include: (1) increased utilization for existing natural resources; (2) attraction of new industries with concurrent up-grading of local skills (labour intensive industries with a high value-added component); and (3) increased self-sufficiency via alternative energy sources and agriculture geared to the northern environment.

Fox, M. December, 1977. The influence of the oil sands development on trapping in the Fort McMurray region. Draft.

Alberta Oil Sands Environmental Research Program, Sub-Project, LS 26.2.

The study proposes to: (1) establish baseline information about trapping taking place; (2) predict the future of trapping in the project study area; and (3) propose management considerations that will lessen the negative effects of oil sands development on trappers. Employment data collected during this study suggest that the majority of trappers are being attracted to available wage work in the area. Positive results of this movement can be seen in the fact that more money can help to acquire and maintain modern trapping equipment. The negative effect is shown by the fact that men engaged in wage work often reduce the amount of time spent in trapping or reject it altogether. In conclusion, Fox states, "Clearly trapping in the project study area is economically insignificant in comparison to the billions spent by the oil sands industry. Be that as it may, trapping is still an important source of livelihood to many who participate in it."

Gemini North Ltd. April, 1975. Alaska native participation in the trans-Alaska pipeline project: a survey of manpower delivery systems. Yellowknife: Department of Indian Affairs and Northern Development.

This 1974 study, commissioned by the Department of Indian and Northern Affairs, investigated the nature, status and timing of native-oriented, manpower-development planning in connection with the construction and operation of the trans-Alaska pipeline system. The study makes the following conclusions and recommendations: (1) Recruitment: (a) one agency should co-ordinate and administer funding; (b) recruitment should be decentralized to the community level; (c) recruiters should be knowledgeable of skills required; (d) there should be immediate and regular follow up of applicants; (e) there should be a simple and accessible data system, under the aegis of one agency; and (f) recruitment efforts should be phased to ensure that community requirements are not jeopardized; (2) Training: (a) Training programs should be planned well in advance of employment activities and should take into consideration whether employment is to be short term or long term; (b) funding should be comprehensive and realistic, and should not exclude persons outside the target group; (c) counselling and guidance services are integral and critical parts of training; (d) the concept of incremental, achievement-oriented, individualized training units should be examined as a possible successful model of training; (e) simulated job circumstances have shown some success as a training model; (f) adequate housing and food for the trainee and family are requisites for

successful training; (g) if training is institutional, the concept of a community advisory council should be explored; and (h) the training should be located so as to provide acceptable transitional experience; (3) Employment Participation and Practices: (a) quota systems have not worked satisfactorily: new criteria should be carefully evolved; (b) the legality of positive discrimination should be established; (c) Alaska natives appear to have shown lower turnover rates on pipeline construction than non-residents. Problems include "no show" and apparent lact of interest in returning to the project after the initial nine-week period; (d) union hiring hall procedures should be examined, to accommodate contractor requirements and need for native persons to be given adequate time to get to the hiring hall from isolated villages; (e) certification procedures for journeyman status should be examined with a view to shortening or modifying requirements; (f) positive discrimination, if it is to be a policy option, should be exercised in a uniform manner with realistically established criteria and attainable goals; (4) Support Services: (a) there should be adequate counselling through entire training/employment cycle; (b) support services should include allowances and subsistence, housing, family support, transportation support, and support for re-hiring persons returning to home communities after initial employment.

Gerlach, E. November 1972. The employment of American Indians in New Mexico and Arizona. Washington, D.C.: Commission on Civil Rights. ED081523. 94 pp.

This document describes the employment patterns of reservation and non-reservation American Indians in New Mexico and Arizona. Topics cover: (1) reservation characteristics; (2) five selected reservations; (3) federal government employment; (4) state and local government employment; (5) public school employment; and (6) private employment.

Heinemann, L. 1975. The Tawow Project: an historical summary and evaluation. Winnipeg: Department of Northern Affairs.

This is the evaluation of "an experiment in relocation of native workers from isolated northern communities to an industrial community and to employment in an industrial work place". For successful relocation the following recommendations are made: (1) coping skills are more easily acquired in one's own natural environment with informal support available - "life skills" should be taught in home communities; (2) the move should be entered

into voluntarily; (3) community employment consultants should be engaged in preparing the client for employment and relocation; (4) transitional housing is a crucial issue; (5) native northerners given six months training should be employed for planning program, recruiting clients and implementing the scheme; (6) there is a need to build in a community partnership from the beginning; (7) the companies and unions should become part of the employee's support service; (8) the union should be asked to orient native workers into the union; and (9) non-native staff should have an initial orientation in native culture, history and values.

Hobart, C. November, 1974. Adjustment and effectiveness: Arctic oil exploration of Gulf Oil Canada, 1973-74; Sociological Analysis, Vol. 1. Edmonton: Westrede Institute.

According to Hobart, 1974 saw fewer problems between native workers and supervisors as a result of greater knowledge and understanding of each other than was evident in 1973. This particular study looked at both southern workers and northern workers. With regard to northern workers, the following recommendations were made: (1) expectations of native workers should be increased; (2) a northern labour-relations officer should be retained for communications between workers and supervisors; (3) native workers should be kept informed of the kind of work they will be doing, opportunities for upgrading, job changes, specialized training; (4) need for continuous programs of general, specific work opportunities, advancement, training, etc.; (5) Inuit men should be used as subforemen or straw bosses.

Hobart, C. December, 1976. Rotation work schedules in the Northwest Territories: a study of variations and consequences. A report to the planning and development division, Department of Economic Development Division, Department of Economic Development and Tourism, Government of the Northwest Territories.

This study incorporates previously published literature on work rotation with original research conducted by the author. A variety of rotation work arrangements are reviewed (7 days at work, 7 days at home; 14 days at work, 7 days at home; 20 days at work, 10 days at home; 42 days at work, 14 days at home).

The study concludes that work rotation is preferable to either traditional employment or permanent relocation as an alternative for northern native people. The author notes that traditional trapping is no longer a viable alternative in light of the preferences of native people and the impact of the educational system in the past 10 to 15 years which has oriented youth toward wage-employment and settlement-oriented life styles. Further, the

alternative of permanent relocation has proven unsuccessful, although the author notes that it has never been tried under optimal conditions. On the basis of the findings of published literature, the study suggests that: (a) work periods of 30 days or longer may be too long; (b) adequate pre-employment briefing is essential; (c) isolation is more tolerable where the work is meaningful and enjoyable than where it is not; (d) familiarness, quality and quantity of food served in isolation situations are important to morale; (e) adequate, uncrowded physical facilities are important to morale; (f) feelings of group membership (dialect sub-groupings) are important to morale; (g) the higher the wages, the more able the worker is to cope with the stresses of isolation; (h) provision of adequate opportunities for workers to communicate with loved ones at home is important to the success of work rotation programs; and (i) adequate briefing on hazards of the work site is important in helping the workers cope with the stresses of isolation. The original research conducted by the study provides the basis for the author's conclusion that work periods of up to 20 days have no ill effects on the workers or their wives and families. Longer periods of work appear to be less successful. The study found that communities did not suffer any adverse effects attributable to rotation work employment up to 20 days.

Hobart, C. and G. Kupfer. 1973. Inuit employment by Gulf Oil--assessment and impact on Coppermine 1972-73. Edmonton

The findings indicate that Inuit performance and job satisfaction are directly related to the relationship established between the Inuit workers and the supervisory personnel. Where the supervisor was sensitive, outgoing and communicated respect and appreciation of the Inuit, there were few problems. Key problems in the work area were: (1) lack of understanding of overall oil work plan among Inuit work crew members; (2) lack of comprehension of the specific task, through a lack of English and technical jargon; (3) traditional Inuit cultural influences such as the prohibition against asking questions of people; (4) profound fear of ridicule; (5) colonial experiences of apathetic dependence on whites in most areas of decision-making in northern settlements. The study contained specific recommendations: (1) since success hinges on the supervisor, there is a need for more careful selection of supervisory personnel, better screening to eliminate brisk, short-tempered and hard-driving bosses; (2) there is a need for orientation of supervisory personnel in Inuit psychology, knowledge, and values for better understanding of the "why" of behaviour; (3) supervisors should make an effort to pass insights on to white subordinates;

(4) efforts should be made to provide more adequate briefing for Inuit workers delivered in their mother tongue concerning "white psychology," and "work psychology"; (5) explicit regulations to limit oversights which the company was willing to accept in first year of operation.

Indian Girls Learn Keypunching in Yellowknife. January/February, 1971. Canadian Training Methods. p. 23.
This short article describes the training of four Indian girls to operate the keypunch machines for the Territorial Government in Yellowknife. The course began in 1970 and consisted of 14 taped lessons. The course was strictly job-oriented and all girls were placed immediately on completion of the course requirements.

Innovation in northern education: basic electronics course. March, 1969. Northern Newsletter, No. 5, pp. 7-8.
This paper describes a course to train those Territorial residents selected to meet the requirements for specialized training in electronics. The program, located at Fort Smith, was comprised of three, 13-week phases from basic electricity to fundamental electronics. The course required Grade XI as an entrance requirement and included such as: Technical English, Circuitry, Transistor Fundamentals, etc. The program was funded by Department of Indian Affairs and Northern Development. There were no job guarantees and the article gives no indication of the number of trainees or their success.

Jeanneau, J. March 9, 1973. Business management training for Native people. Canadian Vocational Journal, pp. 10-13.
This article discusses the training techniques of the Training Research and Development Station in Prince Albert, Saskatchewan. Funded by Canada Manpower, a comprehensive and integrated approach to management is taught in 124 lessons on nine areas in a 6-month time period to Indian and Metis people with little formal education. The purpose of the course is to prepare native people either as owner-managers of small business or as management personnel for band or co-operative businesses. The length of the course and its organization are flexible enough to accommodate the varied experiences of the trainees. The

following techniques are considered successful: (1) subjects are not "taught" - areas and problems are discussed; (2) students participate and brainstorm; (3) there is little lecturing - various techniques are used such as films, filmstrips, group work, and guest speakers; and (4) subjects are not compartmentalized, an integrated approach is used.

Kuo, Chun-Yan. 1972. The effect of education on the earnings in the Mackenzie district of northern Canada. Economic Staff Group, Northern Economic Development Branch, Ottawa: Department of Indian Affairs and Northern Development.

The statistical analysis of data of education and income of native people in the Mackenzie Delta yields the following observations: (1) there is a significant increase in earnings related to post-secondary education, nursing training, vocational education and journeyman's credentials; (2) the number of whites in a community raises earnings for all the community work force; (3) earnings are highest for married people; (4) workers between 45-54 years of age have the highest wages; (5) whether a native person has knowledge of English or not is not an important criterion to earning capacity; (6) there is a degree of imperfect competition in the labour market in the northern economy.

Lampe, W.J.P. 1974. Native people's perceptions of factors associated with job acceptance and retention. Ottawa: Department of Indian Affairs and Northern Development, Northern Affairs Branch.

A survey of male, Yukon Indians between 22-66 years of age and 10 employers, to ascertain job preferences of Yukon Indians, revealed that, for the Indians, the most frequently preferred jobs were: (1) jobs paying those with previous experience premium wages; (2) jobs with a longevity of one year or longer; and (3) within daily commuting distance to the current place of residence. Employers tended to assume that Indians preferred seasonal, menial, outdoor jobs. Recommendations were made as to how to increase the number of jobs in Indian-preferred employment: (1) the government should make agreements with entrepreneurs that employ Indians which would specify characteristics of jobs to be made available, as well as their number emphasizing near-home, long-term, higher paying work; (2) a specialized employment service, staffed by Indians, should be made available and made mandatory for use by relevant employers for Indians who prefer to have less well paid, casual or less proximate work; (3) research concerning Indian wage-work preferences

and aversions must necessarily utilize Indians to comment directly on the enhancement of Indian employment goals and means of achieving them; and (4) there is a need for preliminary Indian work-force surveys examining aspiriations and preferences of the Indian work-force.

La Rusiac, I.E. 1970. From Hunter to Proletarian: the involvement of Cree Indians in the white wage economy of central Quebec. in Norman Chance, ed. Development of change among the Cree Indians of Quebec, Summary Report. McGill-Cree Project (ARDA Project No. 34001). Ottawa: Department of Regional Economic Expansion, Annex B.

The Indians' involvement with the labour market is described as marginal at best.

At present the Indian population is primarily a source of unskilled labour which can be called upon when needed. Except for guiding where his services are indispensible for the operation of the enterprise (and where he works only at the lowest job level) is his job secure from the competition from whites. Given the present decline in trapping . . . some totally new sources of year-round employment will have to be devised.

It is suggested that job training needs to look at how the system works. Some questions as: (1) How do you get a job through Manpower?; (2) Why does management place so much emphasis on punctuality?; (3) What are reasonable pay scales for mineral exploration?; (4) How do you collect unemployment insurance?; and (5) How do you have recourse against an employer who cheats you? The list is endless, but practical, and could help make Indian workers functional in the "White World" and knowledgeable enough of its wiles so that they can develop strategies of self-defence. Indians must have the possibility of exercising rational choice in how they want to structure their future.

Levitan, S.A., and G.L. Mangum. 1969. Federal training and work programs in the sixties. Ann Arbor, Michigan: Institute for Labor and Industrial Relations.

This study examines federal training and work programs in the sixties, in the United States. With regard to employment training, it is concluded that successful preparation for employment begins with early exposure to concepts of the work world, progresses through familiarity with alternative vocational choices to broad preparation for employment training and ultimately, whether in school or on-the-job, to competence in particular skills with institutional assistance in the transition from the classroom to the work place. The authors maintain that the

goal should be to have within commuting distance a single institution providing the following: (1) two-year technical courses in a wide range of skill areas; (2) shorter, more specialized vocational courses for those unable or unwilling to carry through more demanding courses; (3) Adult Basic Education courses to compensate for deficient education and preparation for skill training, (4) prevocational orientation; (5) both full-time and part-time courses; (6) sufficient financial resources to meet communities' training needs; (7) employed adults' upgrading courses; (8) upgrading courses for the unemployed; and (9) residential facilities for people from outlying areas.

The study recommends that formal instruction and guided experiences in sources of jobs, and approaches to job hunting should be supplied in public schools. Manpower services should emphasize assisting those who have the most difficulty in competing for jobs. This might be aided by employment agencies locating in areas of high unemployment, in schools and training institutions.

Relocation is only recommended for the most adaptable--the young, educated and aggressive. For others, relocation has only limited application.

Liebow, E. 1967. Talley's Corner, Little, Brown Co. Boston. 255 pp.

This case study of a streetcorner in Washington, D.C. challenges some of the assumptions about the unemployed resulting from surveys, questionnaires, and dependency and delinquency studies. The author maintains the need for studies of the context of life in areas of high unemployment. The focus of research should be on the man as father, husband, friend and community member. Researchers should design exploratory research designs with no firm presumptions of what is or is not relevant.

Liebow identifies the following characteristics of the long-term unemployed: (1) long history of jobs which he could not hold or would not hold; (2) low self-esteem in relation to employment; (3) fear of being tested; (4) fear of accepting jobs with responsibility; and (5) contempt for menial jobs. Liebow emphasizes that the reasons for not getting a job are many. Some are objective and reside principally in the job; some are subjective and reside principally in the man. It is erroneous to assume that a man's refusal to take a job or his decision to quit one is a simple impulse or value choice.

Linklater, C. October, 1972. Native migration: phase two. Ottawa: Department of the Secretary of State.

This is a study of migration and urbanization of native people in the City of Edmonton. The primary

reason for moving to Edmonton was found to be to find work. However, 68% of the sample were unemployed. The study found that although native persons felt their standard of living had increased, primarily as a result of availability of services, few believed their quality of life had improved.

Lloyd, H.G. December, 1974. Report on review of northern native relocation programs. Policy and Planning ACND Division, Northern Policy and Program Planning Branch, Department of Indian Affairs and Northern Development. Prepared for the Environmental-Social Program, Northern Pipelines, Task Force on Northern Oil Development.

This study reviews 12 northern native relocation programs: Tungston, N.W.T.; Deception Bay, Quebec; Yellowknife, N.W.T.; Lynn Lake, Manitoba; Guelph, Ontario, Pine Point Mine; Great Slave Lake Railway; Panarctic Oils; C.A.G.S.L. Northern Training Program; Gulf Oil Eskimo Employment Program; Hire North; and Anvil Mining Corporation.

The study found: (1) with few exceptions, workers participating in permanent relocation programs return to their original home communities or other northern communities; and (2) there seems to be greater success among programs that offer semi-permanent or rotational relocation than among those that offer permanent relocation.

Crucial considerations for permanent relocation are identified as: (1) pre-move orientation; (2) housing; (3) counselling. Examples include Yellowknife, Lynn Lake, and Pine Point. Critical areas for semi-permanent relocation include: (1) pre-move orientation about work conditions, rules, pay,etc.; (2) total equality of job opportunity with southerners, including training on the job and opportunity for advancement; (3) a company-organized logistical operation to move the worker between job and home on a regular basis. Examples include: Panarctic Oils, Gulf Oil, and Hire North. The study recommends further research and study in two areas: (1) studies of relocation for employment that provide useful information about the movement of people in relation to employment opportunities within the North; and (2) research which concentrates on the increased mobility of the population within the Arctic region. The report recommends that further research into relocation into southern communities not be undertaken.

Moncrieff, C., Montery, and Associates Ltd. August, 1972. Metis Regional Council, Lesser Slave Lake Special Area's Task Force on Economic Opportunity. Edmonton, Alberta.

The Task Force on Economic Opportunity was guided by a desire to involve and advise individuals and communites on the variety of economic and community programs that were to be sponsored and funded under the Lesser Slave Lake Special Area Agreement. The authors contend that, given the right combination of programs (Social and Education, programs for resource development, and programs for infra-structure development), the native people will develop a sense of social independence, job security and an improved way of life. Some of these programs are jointly funded by the federal and provincial governments while others are solely the financial responsibility of the province. Many of these programs are of a counselling nature (life skills) which includes leadership development skills. The primary reason for the formation of the "Special Area" was the creation of new jobs for native and non-native people of the region. However, the actual job creation largely involves the communities of Slave Lake, High Prairie and Grande Prairie, because industry tends to concentrate on larger communities that offer cheap land, good roads, railway, water systems, schools and other larger community benefits. The authors point out that other communities should have or receive consideration for the establishment or extension of smaller, less capital intensive enterprises. The authors suggest that "contractual" work arrangements would facilitate steady, full-time, year-round employment. The governments would assume a major role in providing, negotiating, implementing, and monitoring such work arrangements, particularly for younger people.

The authors believe that, in the long-run, the existence of native-owned and managed enterprises will help achieve a self-determination that is essential to the economic well-being of the native people. Therefore, they recommend that provincial programs give the necessary assistance to local entrepreneurs (or native business people). The Metis Council, it is suggested, should obtain from the Province of Alberta the resources to develop native managerial skills.

Morrison, R.B. 1975. The dilemma of wage labour: a study of native labour patterns in Grande Cache, Alberta. Edmonton: Department of Manpower and Labour.

This study focusses on the transition of the Grande Cache area from an area of traditional hunting and trapping occupations for native people in an area with a wage-based economy. Some of the observations with regard to training and employment are: (1) early relationships with employers were based on a patron-client model; (2) life-skills imply a cultural group are deficient and this is a subtly destructive approach; (3) native people have

difficulty confronting bosses; (4) ideally, a boss with whom native people can work has the qualities of an ideal traditional native leader -- kindness, understanding and wisdom; and (5) a native foreman is acceptable if the role is structured in such a way as to encourage communication between the foreman and crew.

Nogas, F.R. October, 1976. Fly-in program at Rabbit Lake. CIM Bulletin, pp. 125-128.

Because of the elements of uncertainty and instability associated with single enterprise communities, there is increasing interest in the alternatives to developing additional new communities of this nature.

Gulf Minerals Canada Limited has chosen a unique alternative means to accommodate employees at a new uranium mine/mill complex at Rabbit Lake in Northern Saskatchewan. Gulf has adopted a fly-in program which moves their staff from a 450-mile radius, in and out of the on-site facilities, on a 7-day rotation.

Despite the fact that the program is only one year old at the time of this report, it can be cited that there has been a competent work force with good morale which has experienced relatively low turnover (28% in 1975) compared to similar operations. The program has been well received in the northern communities because it provides these residents with an opportunity for regular employment while allowing them to maintain their traditional life-style, including hunting, fishing and trapping.

Owen, Thomas and Associates Ltd. May, 1976. Barriers to native labour entry and employment. Winnipeg: Department of Regional Economic Expansion (Western Regional Office).

This study brings together published and unpublished documentation of factors involved in native employment and opinions based on interviews with native people, program administrators, analysts and private employers. Eight categories of barriers were identified: training; experience; health and nutrition; life styles; prejudice; opportunity; and motivation. Despite the fact that barriers can be organized as separate entities, it is noted that the net effect on the individual is cumulative. Key principles enunciated are: (1) manpower programs must be comprehensive; (2) programs must be flexible enough to differ with individual and community needs; and (3) community participation in economic decision-making is imperative.

Padfield, H., and R. Williams. 1973. Stay where you were. Philadelphia, Penn.: J.B. Lippincott.

As a result of studying a compensatory, job-opportunity program in depth, Padfield and Williams make the following recommendations: (1) basic changes are necessary in existing personnel practices in industry; (2) to employ more traditional unemployables, industry needs to put aside its selection standards, relax its discipline policies, redesign its entry jobs, provide fundamental training, cushion the impact of personal functions, set guidelines for supervisors and absorb the backlash; (3) the labour force needs to be redefined; (4) recruitment should be on-the-scene, in local communities; (5) foremen must be committed to any innovative scheme within the plant; (6) reasons for absenteeism are more important than the number of absences; (7) management, the union and the employees should all be involved in programming; (8) actual job training and placement are more important than such things as vocational training, counselling and special education programs without occupational status; and (9) counselling must extend to the total factory population -- including interviewers, instructors, foremen and managers.

Pope, A. November, 1969. An educational program for adult American Indians. Adult leadership, pp. 143-144, 156.

Pope describes a basic education and prevocational orientation program, for one hundred trainees and concurrent family-life education project for the trainees's wives and children, at the University of Montana. The program consists of teaching the native trainees reading, math, language arts and social studies. A prevocational job-survey course introduces the trainees to various vocations and counsellers help in the selection of a vocational school for specific training. Although certain social problems such as alcohol, culture shock and homesickness are not solved by the program, it is deemed a success by organizers since it allows students to realize daily achievement and fills family needs not fulfilled otherwise.

Province of Manitoba. November 14, 1975. Report of manpower working grouping. Winnipeg: Northern Planning Effort.

After examining the basic assumptions and existing programs of Manpower for northern residents, the Manpower Working Group suggests the need for a new manpower strategy with a shift in emphasis. Training in itself must no longer be an objective. The purpose of training is to provide a significant contribution to the employability of the client. Most job training must become more specifically job related -- tied directly to existing jobs, training on-the-site and in positions with directly

accessible career paths. Relocation projects are not working; local control must be emphasized. Local leadership and direction is recommended. Long-term planning should be initiated, geared toward community input. The following three assumptions are challenged: (1) that training is to be conducted in isolation of employment; (2) that targeted jobs should be blue collar with minimal skill levels; and (3) that people with education and/or training will have little difficulty in finding satisfactory jobs.

Purley, A.G. May, 1970. Evaluation and vocational programs for American Indians: a position paper. Albuquerque, New Mexico: Southwestern Cooperative Educational Laboratory. ERIC ED057950. 95 pp.

After a review of the literature of past and present vocational education programs conducted by The Bureau of Indian Affairs (BIA) and private industry, it is concluded that vocational education for Indian people is a booming business, but unemployment for Indians is still between 40 - 75%. Furthermore, it was found that current research on evaluation, methods and techniques, and the status of the various vocational education programs is meager if not non-existent. Research is recommended in the following areas: (1) assessment of programs offered by BIA -- taking into consideration teacher preparation, teacher recruitment, curriculum, school organization, and community role; (2) assessment of vocational education programs for American adults; (3) research into adequacy of opportunities, training, and placement of Indians; and (4) on-the-job behaviour, values, attitudes, motivation and competencies held or needed by Indians for successful entry, persistence and advancement in vocational training and employment.

Roberts, L. 1974. Education and work adjustment among the eskimos of the Northwest Territories. unpublished Master's thesis, Edmonton: University of Alberta.

This study attempts to investigate the relationship between the education and work adjustment among male Eskimos in the Northwest Territories. During the 1950's policy was based on the assumption that education was directly and closely related to employment acquisition and maintenance. The assumption has been challenged by recent empirical studies. Roberts argues that the native education in the North is based on the educational assumption of the 1950s and deserves critical examination is light of recent educational literature. Roberts hypothesizes that various demographic and socialization variables should affect the relationship and further education is likely to have considerably less effect upon

work adjustments than predicted by educational policy. Although the study does not reveal any significant variables, it is demonstrated that the Northwest Territories' educational policy has isolated relevant variables for substantially increasing educational attainment. However, this increased education has not had its assumed benefits for work adjustment.

Rogers, G.W. August 18-21, 1969. Cross-cultural education and the economic situation: The Greenland and Alaska case. Montreal: International Conference on Cross-Cultural Education.

The paper examines the economic situation in Greenland and Alaska. Similar in many ways, the two countries represent opposite policy poles from a cultural standpoint. The basic economic problem of both areas is one of severe regional imbalance when compared with the rest of the nation. For both, government policy has tried to raise income and consumption to a level comparable with the rest of the country. The varied improvement programs and policies use three underlying processes: (1) population transfers; (2) raising levels of regional productivity, and subsidization of investments; and (3) public consumption and levels of private consumption. Analyzed thusly, the subject cases represent two opposite approaches to economic and social development, although results have been similar. Greenland emphasized promoting regional economic development to serve social objectives; Alaska emphasized changing people through education and vocational training. Recent educational development reforms, however, are switching their emphasis in Alaska, the policies are in adaptation of the Greenland policies for improving the lot of people where they are; in Greenland, the Alaskan policies for increasing the mobility and acculturation of people in economically depressed areas are being used. The failure of educational programs in these areas results from the forms of the system, the classroom and the academic year, all of which are not compatible with the traditional hunting and fishing, semi-nomadic societies of these indigenous people.

Ryant, J.C., and R. Proctor. 1973. An evaluation study of the Manitoba New Careers Program. Unpublished. Winnipeg.

The New Careers Program represents a program of job guarantees and training for native people within the civil service. There is high permanent job acquisition and a low drop-out rate. The program demonstrates that people who were formerly "locked out" of contributing to society through meaningful work are able to make a valuable contribution. Participation in the public service by members of the lower class and Manitobans of Native ancestry

is feasible and practical. The program has demonstrated that the existing credentials system is a barrier to the employment of people, who, with some support and experience, can perform a variety of tasks well. It is recommended that the importance of the line supervisors should be recognized and such supervisors should be chosen for their understanding of the goals and objectives of the program and their sympathy for those goals.

Smith, D.G. 1967. The Mackenzie Delta -- domestic economy of the native people: a preliminary study. Mackenzie Delta Research Project, MDRP 3, Ottawa: Department of Indian Affairs and Northern Development.

This study shows that steady job opportunities are simply not available. Casual and seasonal jobs simply lead to economic frustration and uncertainty. There is a need for realistic opportunities which can be used for constructive change. Since native people vary in their attitudes towards wage-earning, it must be assumed that persons who enter training programs share the values and expectations of the program planners and the occupational sub-system into which the trainee will move after his training; the author sees training as a means of adapting people, otherwise provided with a basic education, to participate in socio-economic niches consonant with the needs and demands of society and its economy.

Smith, D.G. 1974. Occupational preferences of northern students. Social Science Notes No. 5. Ottawa: Department of Indian Affairs and Northern Development.

In the study of northern high-school students' occupational preferences, it is concluded that ethnic differentiation in northern Canada accounts for little differentiation in the evaluation of occupations.

This is interpreted to mean that the type of culturalist position that assumes that ethnic groups in the North necessarily possess residue of aboriginal cultural values and attitudes towards occupations incompatible with 'modern' attitudes and values towards such aspects of contempory northern life as the occupational system can safely be rejected.

It is apparent that simple labels such as Eskimo, Metis, Indian and Euro-Canadian hide significant internal cultural regional and class distinctions. Teachers evaluate students' preferences as outdoor, non-urban, and traditional much more than the students do. Low-class jobs for native people are not a reflection of native students'

aspirations but rather of the structuring of opportunities for them in the work place. Specific findings indicate that northern native students showed a preference for occupations in the clerical and sales, proprietorial, managerial, semi-professional and professional categories. They showed least preference for outdoor work. They desired 30 - 50 hour per week jobs in urban areas but with retention of local home ties. Their preference was for work with large companies with low preference for self-employment.

Social, Economic, Cultural Sub-Committee. January 10, 1978. An assessment of the social, cultural and economic impact of Dome/Canmar Drilling activities, 1977. Unpublished.

This study examines the social, economic and cultural impact of drilling in the Beaufort Sea on the communities of Aklavik, Inuvik, Tuktoyaktuk, Sachs Harbour, Holman Island, Coppermine and Paulatuk. With regard to employment opportunities, the report maintains that 244 jobs were created for people in the Beaufort Sea region. However, of the available labour pool in the communities, only a portion were suitable for employment, i.e., with suitable training, skills and of the appropriate age.

There were no reported adverse effects on traditional activities. In fact, money earned in the summer helped equip young men for the winter with purchase of snowmobiles, guns, ammunition and food. The number of trappers actually increased in four of six Beaufort communities.

Stevenson, D.S. May, 1968. The problem of Eskimo relocation for industrial employment. Ottawa: Department of Indian Affairs and Northern Development.

This survey studied 105 Eskimos who had been relocated by the federal government and business in southern communities for industrial work. Three separate enterprises were examined -- the Great Slave Railway, Yellowknife Giant Mines and Lynn Lake, Manitoba Mining. Certain positive factors in successful adjustment are: (a) knowledge of English; (b) previous experience; (c) comprehension of opportunities; (d) absence of confusion (misinformation) about work and social conditions; (e) ease of migration i.e., financial and spatial, easy movement home or co-migration of kin; (f) straightforward rules; and (g) interest shown by officials. Native factors revealed are: (a) lack of adequate housing; (b) lack of understanding of rules governing social behaviour; and (c) kin obligations. The following recommendations are made: (a) adequate housing should be a priority; (b) bilingual procedure manuals would help overcome the language barrier; (c) methods for maintaining kin/ties are needed; (d) pre-migration briefing

is essential; (e) at destination, migrants should be met by people able to assist in finding lodgings, giving information on use of health facilities, and information including tax and credit systems; (f) information about diet and food preparation should be available; and (g) social expectations should be described in realistic rather than idealistic terms.

Symposium of Resource Frontier Communities Proceedings , December 16, 1968. Series 4. Winnipeg: Center for Settlement Studies, University of Manitoba.

The series was divided into three parts, each part addressing various relevant questions about community development. The three parts were: (1) general; (2) sociological and educational; and (3) economic. Following each panelist's presentation on the question, a general discussion took place. The first general discussion concluded on some advice to community researchers and research needs suggestions. The sociological and educational questions were addressed and then followed by general discussion. The economic questions addressed the relevant questions: (1) Do citizens of resource frontier communities have a higher or lower "real income" or "level of living" than their southern counterparts? If so, what are their differentials?; (2) Have the recent labour studies in the north given any indication of the possible effects of economic incentives to reduce labour turnover in many communities?; and (3) What are the economic implications (costs, productivity), if any, respecting the employment and on-the-job training of aboriginal populations (Eskimos and Indians) as compared to the white population? The panelists agreed that support services need to be established to help integrate the Indian/Eskimo into the industrial scene. The northerners, as a whole, must bear heavier costs for food, etc., than their southern counterparts and are, in the opinion of the panelists, in a losing situation monetarily because of higher taxable income, etc. Also, support services are necessary to make life more comfortable for northerners. Questions 2 and 3 were not appropriately addressed.

Tarasoff, K.J., H. Schultz, and K. Myers. April, 1970. A socio-economic review of the Garment Plant--Fisher River and Peguis communities, Winnipeg: Department of Regional Economic Expansion.

According to the evaluation, cause and effect relationships cannot be given, but the factory has provided local jobs to a limited number of women and at the same time has given them built-in support for future mobility and has raised their expectations. Positive reactions of

employees towards the industrial setting, supervisors and plant rules are recorded and a noticeable degree of satisfaction was noted in the plant. It is recommended, however, that future experimental programs have a research component built in for a before-and-after in-depth study.

Taylor, B.J. and D.J. O'Connor. 1969. Indian manpower resources in the southwest: a pilot study, Tempe, Arizona: Arizona State University. ED089907. 399 pp.

The Indian Manpower Resource Study (IMRS) was undertaken to provide basic information essential to the planning and development of effective programs to make use of the manpower resource of reservation Indians in Arizona and New Mexico. In the past, decision-making has largely been undertaken with a minimum of valid information. The reservations studied were Fort Apache, San Carlos, Acoma, Laguna and Papago. Data indicate that Indians of the Southwest have substantially lower incomes than other Americans. Also, although most reservation families live in a rural setting, they should not be considered farm families. The study, in addition to income and available manpower, supplies data, gathered information on age and sex, family characteristics, industry and occupational experiences, and consumption patterns. This study supports the hypothesis that the creation of on-reservation opportunities would be met by a willing labour force. Generally, information indicates that Indians may require more concentrated efforts to resolve their employment problems than other disadvantaged U.S. citizens because of their relatively greater deprivation.

Wall, C. 1975. The socio-economic evaluation of training benefits of the Manpower Corps Training Plant -- Selkirk. Unpublished.

Wall evaluates the Selkirk Manpower Corps Training Project designed to give service to a group of underemployed people who do not get assistance through traditional Manpower programs. Its stated aims are to equip disadvantaged people with skills so that they can find employment in the urban community and to encourage people to take advantage of opportunities for further education and training. Included in this paper are specific student recommendations with regard to ways of improving the project: (1) longer training period; (2) more time in the classroom; (3) emphasis on how to look for a job; (4) need to teach things that are not already known; and (5) the least important concerns of students were its rate of allowance and the fact that the course did not grant a certificate or diploma.

Wall, R. December, 1975. Integration of the disadvantaged. Winnipeg: Manitoba Manpower and Employment Planning Secretariat.

The study examined existing models of integration of the disadvantaged which emphasize education, retraining, counselling, "life skills", and supervision on-the-job in an effort to fit the trainee into the dominant society. A bilateral approach is advocated in contrast which would require adaptation by both management and labour. Looking at three feasible models, New Careers, Selkirk Park Furniture Plant and the Churchil Prefab Plant, the following recommendations,exhibiting the successful features of each project, are purported: (1) training should be on-the-job as much as possible: (2) "life skills" should be restricted to job-related tasks and relocation requirements if relocation is necessary; (3) recruitment should involve manpower agencies and native organizations as well as project management; (4) selection should be based on the degree of disadvantagedness as well as the likelihood of success of integration/employment: (5) supervisory and training staff must be sympathetic as well as qualified.

Watson, J.G., and C.D. Rowe. April, 1976. 'Training of operative employees . Training and Development Journal, pp. 24-26.

The operation of a U.S. Government Camouflage factory by the Brunswick Corporation on the Fort Totten Sioux Indian Reservation is evaluated. People with a minimal amount of education, little or no prior related work experience and who were unfamiliar with the workings of an industrial plant or industrial work ethic, were trained as successful industrial employees. The training objectives included both life skills and job training to aid trainee adjustment to an assembly line, to familiarize the trainee with the company, to develop the trainee's responsibility and to develop skills, knowledge, attitudes and acceptable employee behaviour. The training consisted of two weeks of classroom instruction encompassing: lectures, films, case studies, discussions, question and answer periods concerning attitudes and expectations of employers, terminology, plant safety and plant rules, pay rates and benefits. One week of training occurred in a simulated work environment. Since the plant showed a profit in four months, the project was deemed a success.

'Wilderness Area Used as Classroom to Train Heavy Equipment Operators , Fall/Winter, 1967-68. Manpower Training in Canada, pp. 10-11.

This program is designed to train skilled manpower to develop northern areas of the provinces which are rich in

minerals but sparsely populated. This particular description is of Camp No. 4 Alberta Resources Railroad where the Alberta Department of Education conducts a four-week heavy equipment operating course. This course offers a certificate stating the number of hours of instruction towards an apprenticeship. The course consists of six hours per day of basic training in operation and maintenance of the equipment. Although training allowances are paid by Indian Affairs, and occupational counselling and job placement services are available from Canada Manpower, no job guarantees are built into the program. The review states that 43 trainees took part in the course but no record of their completion rate or successful job placement is included. Begun in 1967, the subsequent history of the program is unknown.

Williamson, R.G., and T.W. Forth. n.d. Eskimo relocation in Canada. Saskatoon: Institute for Northern Studies, University of Saskatchewan.

This study deals with the relocation of Inuit workers to work for/on the Great Slave Lake Railway in Northern Alberta, and to work in the mines in Tungsten, N.W.T., Asbestos Hill, Quebec, Yellowknofe, N.W.T., and Lynn Lake, Manitoba. The authors identified 10 factors affecting successful relocation: (1) maintaining close kinship ties, preferably by relocating groups of people having common kinship ties; (2) strong motivation to make the move; (3) previous relocation experience; (4) detailed and understandable advanced planning before a recruitment takes place; (5) generous funding for relocation projects; (6) adequate communication between persons relocated and their old home communities; (7) adequate minimal mastery of English; (8) easy access to people who serve as models for new patterns of behaviour which should be acquired; (9) provision of housing that is adequate in terms of amount and quality; and, for some at least (10) an environment which is not disturbing and provides needed resouces.

Wilson, B. August 29, 1975. A selected review of provincial manpower and employment programs. Winnipeg: Cabinet Planning Secretariat, Manpower and Employment Section.

Wilson concludes that identification of training with employment is important for success. Training must not only be technically competent but must also be certified. Programming for special needs individuals requires in-depth provision of services. A combination of "software" (counselling) and "hardware" (e.g., technical training) are required to bring special needs persons to the primary labour market level. It is important to put the target

group through diploma courses rather than confining them to Adult Basic Education courses and certificate courses.

Wolfart, J. 1971. The evolution and economy of the Delta community, MDRP 11 - Mackenzie Delta Research Project. Northern Science Research Group, Ottawa: Department of Indian Affairs and Northern Development.

The analysis of native employment in Inuvik employs the concept of "dual" allegiance which emphasizes the combination of the "push" and "pull" factors. There is presented a typology of native people on a continuum from "pulled to the bush" to "pulled to the town." The permanent jobs are held by whites. The non-permanent, less-skilled, lower salaried jobs fall to the native people. The native is regarded as a "bystander to the economic scene". Since educational policy has linked educational achievement with entry into jobs and the panacea which would remedy the economic problems of the native people, the people under 30 are better educated, have better opportunities and yet have the most stress. They have ambivalent attitudes towards employment. There are lots of jobs but the young people recognize that they lead nowhere, and that there is no reward in status. There is a high turnover among the trappers who view jobs as a resource to exploit in order to gain enough money to return to the trap line. The trappers have no stake in looking for permanent, high-status jobs. Relatively highly acculturated, town-dwelling natives, on the other hand, hold permanent, full-time, well-remunerated jobs for long periods of time. Thus, the views towards wage employment differ amongst native people.

8. REFERENCES CITED

Assheton-Smith, M.I. 1979. Training and employing indigenous workers: a conceptual scheme and proposal. Prep. for Alberta Oil Sands Environmental Research Program by Development Corporation Technical Services. AOSERP Project HE 2.3. 63 pp.

Barr, J.J. 1975. "Tar sands development: juggernaut or social benefit? The social impact of the Syncrude Project", Remarks to the Seventh Congress of Canadian Engineering Students, Calgary, January 9, 1975.

Canadian Bechtel. n.d. Native employment: Mildred Lake site.

Co-West Associates. 1976. Training follow-up study, Keyano College, Fort McMurray, June, 1976.

Ekistic Design Consultants Ltd. August 1975. Fort MacKay: a community profile.

Ekistic Design Consultants Ltd. October 1975. Anzac community profile.

Johnson, H.L. 1979. An Exploratory Study of Deviance in the Athabasca Oil Sands Area. Prep. for Alberta Oil Sands Environmental Research Program. Project HE 1.2.6. 74 pp.

Larson, L. 1979. The impact of resource development on individual and family well-being. Prep. for Alberta Oil Sands Environmental Research Program by Family Research Consultants. Project HE 1.2.1. 182 pp.

Riffel, J.A., J. Burelle and J. Kelly. 1972. The quality of life of native peoples: A discussion paper. Center for Settlement Studies, University of Manitoba. Winnipeg.

Schuster, A. 1978. "Factors affecting the hiring of native people", address delivered to Interprovincial Association of Native Employment Conference, Edmonton, Alberta, March 14-15, 1978.

Sims, B. July 1975. Fort Chipewyan sub-region profile.

Syncrude Canada Ltd. April 27, 1974. Position paper: employment of residents in northeast Alberta.

Van Dyke, E.W. and C. Loberg. 1978. Community studies: Fort McMurray, Anzac, Fort MacKay. Prep. for the Alberta Oil Sands Environmental Research Program by Applied Research Associates Ltd. AOSERP Report 37. 228 pp.

9. APPENDIX

9.1 EMPLOYEE/TRAINEE FILE ANALYSIS CHECKLIST

The file Analysis Checklist employed in this study is presented in Items 1 through to 62 in Table 29.

9.2 EMPLOYEE FILE ANALYSIS CHECKLIST - INDUSTRY

COLUMN 1, 2, 3, 4 Case Number

This may be filled by any number beyond 1000, e.g., 1286, as long as no 2 files are given the same number. Consecutive numbering often simplifies the situation and avoids duplication. If the company prefers, 0000 may be designated for all cases.

COLUMN 5 Card Number

Since the coding sheet has 80 columns, as is the case with the computer card, using only the CIR variable list, 69 columns are needed. All card numbers will be 1. However, should the company add some categories, a second coding sheet would be necessary and a second card necessitating a notation of card 2.

COLUMN 6 Classification

Each file should be classified by one of the options listed. This will depend on whether the person is currently employed, currently in a training program, or formerly employed or formerly in a training program.

COLUMN 7 Company or Training Institution

This category is optional if the company prefers to be unidentified. In such a case, a 9 (not applicable) should be marked.

COLUMN 8 Location (of industry)

In all cases, this category will be marked by a 1 (Fort McMurray).

Table 29. Employee/Trainee File Analysis Checklist.

Column	Variable
1, 2, 3, 4	Case Number
5	Card Number
6	Classification 0. not stated 1. trainee 2. regular employee 3. former trainee or employee 4. Native Outreach client 5. 9. not applicable
7	Company of Training Institutions 0. not stated 1. GCOS 2. Bechtel 3. Syncrude 4. Keyano 5. Native Outreach 6. 7. 8. 9. not applicable
8	Location 0. not stated 1. Fort McMurray 2. Fort Mackay 3. Edmonton
9	Sex 0. not stated 1. male 2. female

Continued . . .

Table 29. Continued.

Column	Variable
10	Age 0. not stated 1. under 20 2. 21-25 3. 26-30 4. 31-35 5. 36-40 6. 41-45 7. 46-50 8. over 50 9. not applicable
11	Marital Status 0. not stated 1. married or equivalent 2. not married or equivalent
12	Number of Dependents 0. not stated 1. none 2. 1 or 2 3. 3 or 4 4. 5 or 6 5. 7 or 8 6. 9 or more 7. not applicable
13	Is Trainee or Employee a Single Support Parent? 0. not stated 1. no 2. yes 3. 9. not applicable

Continued. . .

Table 29. Continued.

Column	Variable
14	Work Desired 0. not stated 1. permanent 2. temporary 3. casual 4. anything
15	Work Desired 0. not stated 1. full time 2. part time 3. either
16	Do You Have an Automobile? 0. not stated 1. yes 2. no
17	Do You Have Tools? 0. not stated 1. yes 2. no
18	Do You Have Safety Equipment? 0. not stated 1. yes 2. no
19	Do You Have a Driver's Licence? 0. not stated 1. none 2. operator's 3. chauffeur 4. other

Continued. . .

Table 29. Continued.

Column	Variable
20	Languages Spoken Other Than English 0. not stated 1. Cree 2. Chipewyan 3. French 4. Assiniboine 9. not applicable
21	Other Languages 0. not stated 1. Arabic 2. Chipewyan 3. 9. not applicable
22	Ancestry 0. not stated 1. Native 2. Non-Native
23	If Ancestry is Native, State Whether 0. not stated 1. Treaty 2. non-Treaty 3. Metis 9. not applicable
24	Formal Schooling 0. not stated 1. grade 7 or less 2. grade 8 or 9 3. grade 10 or 11 4. grade 12 5. grade 12+

Continued. . .

Table 29. Continued.

Column	Variable
25	Training 0. not stated 1. no formal/institutional training for a specific job or task 2. Some formal/institutional training but not certified 3. certified graduate from a formal/institutional course 4. regular on-the-job training for less than six months 5. regular on-the-job training for six months or more 6. academic upgrading 7. on the job experience in specific task 8. 9. not applicable
26	Job Classification or Area of Training 0. not stated 1. Heavy Equipment (backhoe, crawler tractor, front end loader, motor grader, motor scraper, snow removal, etc.) 2. Industrial Workers -- Skilled Trades (millwright, sideboom, welder, electrician, pipe trades, automotive, building construction, etc.) 3. Industrial Workers - unskilled 4. Clerical 5. School Bus driver and driver training, truck driver, taxi driver 6. Vocational Upgrading (adult education) 7. Miscellaneous Academic (commercial cook, industrial engineering technician, ski school) 8. Traditional/resource 9. not applicable

Continued. . .

Table 29. Continued.

Column	Variable
27	Work History in Twelve Months Preceding Application for Employment or Training 0. not stated 1. steady job (11-12 months) 2. moderately steady (6-10 months) 3. irregular (2-6 months) 4. sporadic (less than 2 months) 5. not working 6. summer seasonal 7. part-time 9. not applicable
28	What Jobs are You Looking For? 0. not stated 1. Service 2. Construction 3. Industry 4. Government 5. Resources 6. Anything 9. not applicable
29	Month Employment/Training Began 0. not stated 1. Jan., Feb., Mar. 2. Apr., May, June 3. July, Aug., Sept. 4. Oct., Nov., Dec. 9. not applicable
30	Year Employment/Training Began 0. not stated 1. pre-1970 2. 1970-71 3. 1972 4. 1973 5. 1974 6. 1975

Continued . . .

Table 29. Continued

Column	Variable
30	7. 1976 8. 1977 9. 1978
31	Work History in 12 Months Preceding Application for Employment/Traning 0. not stated 1. 12 months unemployed 2. 1 day to three months employed 3. 4-6 months employed 4. 7-9 months employed 5. 10-12 months employed 9. not applicable
32	Number of Jobs Held in 12 Months Preceding Application for Employment/Training 0. not stated 1. none 2. 1 3. 2-3 4. 4-5 5. 6-7 6. 8-9 7. 10-11 8. 12 or more 9. not applicable
33	If Employee or Trainee Held One or More Jobs in Preceding Year, What was the Average age Period of Time Between Jobs? 0. not stated 1. 1-2 weeks 2. 3-4 3. 5-6 4. 7-8 5. 8-10 6. 11-12 7. 13-14 8. 15 weeks or more 9. not applicable

Continued . . .

Table 29. Continued.

Column	Variable
34	Reasons for Interruptions in Work History (voluntary) 0. not stated 1. child care 2. illness 3. relocation 4. improved work opportunity 5. retraining or continuing education 6. pregnancy 7. personal 8. choice 9. not applicable
35	Reasons for Interruption in Work History (voluntary) 0. not stated 1. fired 2. layed off 3. shortage or work 4. company leaves town 5. dead end job 6. seasonal 7. imprisoned 8. 9. not applicable
36	Number of Lay Offs Since Employment Began 0. not stated 1. none 2. 1 or 2 3. 3 or 4 4. 5 or 6 5. 7 or 8 6. 9 or 10 7. 11 or 12 8. 13 or more 9. not applicable

Continued . . .

Table 29. Continued.

Column	Variable
37	Number of Lay Offs in the Last 12 Months 0. not stated 1. 1 or 2 2. 3 or 4 3. 5 or 6 4. 7 or 8 5. 9 or 10 6. 11 or more 7. none 9. not applicable
38	Average Length of Lay Offs in the Last 12 Months 0. not stated 1. 1-2 weeks 2. 3-4 weeks 3. 5-6 4. 7-8 5. 9-10 6. 11-12 7. 13-14 8. 15 or more weeks 9. not applicable
39	Union Membership 0. not stated 1. yes 2. no 9. not applicable
40-43	Beginning Salary (Wages) or Trainee Support 0000. not stated ---- state hourly rate 0009. not applicable, e.g., 0407 = $4.07 per hour
44-47	Salary/Support on Termination of Last Job 0000. not stated ---- state hourly rate 0009. not applicable e.g. 1010

Continued . . .

Table 29. Continued.

Column	Variable
48	In the Year Preceding Employment/Training was the Employee/Trainee on Social Assistance? 0. not stated 1. yes 2. no 9. not applicable
49	If yes, For How Long? 0. not stated 1. 1 day to 3 months 2. 4-6 months 3. 7-9 months 4. 10-12 months 9. not applicable
50-54	Income From Employment in the Year Immediately Preceding Employment/Training (excluding social assistance, UIC, etc.) 00000. not stated ---- state income to 00009. not applicable ---- nearest $500
55	Kinds Of Work Experience First Work Experience Listed 0. not stated 1. Government 2. Service 3. Resource 4. Industry 5. Construction 6. Supervisory 7. Agricultural 8. 9. not applicable

Continued . . .

Table 29. Continued.

Column	Variable
56	Second Work Experience Listed 0. not stated 1. Government 2. Service 3. Resource 4. Industry 5. Construction 6. Supervisory 7. Agricultural 8. 9. not applicable
57	Third Work Experience 0. not stated 1. Government 2. Service 3. Resource 4. Industry 5. Construction 6. Supervisory 7. Agricultural 8. 9. not applicable
58	Location of Previous Work First Work Experience Listed 0. not stated 1. Fort McMurray 2. Fort Chipewyan 3. Fort Mackay 4. other northern 5. Edmonton 6. Calgary 7. rural Alberta 8. other province 9. not applicable

Continued . . .

Table 29. Continued.

Column	Variable
59	Second Work Experience Listed 0. not stated 1. Fort McMurray 2. Fort Chipewyan 3. Fort MacKay 4. other northern 5. Edmonton 6. Calgary 7. rural Alberta 8. other province 9. not applicable
60	Third Work Experience 0. not stated 1. Fort McMurray 2. Fort Chipewyan 3. Fort MacKay 4. other northern 5. Edmonton 6. Calgary 7. rural Alberta 8. other province 9. not applicable
61	Are Conflicts or Problems in the Following Areas Recorded in the Employee's/Trainee's records?
62	Role Conflicts 1. yes 2. no 9. not applicable Separation from family or home community 1. yes 2. no 9. not applicable

Continued . . .

Table 29. Concluded.

Column	Variable
62	Discrimination 1. yes 2. no 9. not applicable No job-related skills 1. yes 2. no 9. not applicable Drug or alcohol abuse 1. yes 2. no 9. not applicable Illness or health problems 1. yes 2. no 9. not applicable Attendance or lateness problems 1. yes 2. no 9. not applicable Family responsibilities 1. yes 2. no 3. not applicable Financial 1. yes 2. no 9. not applicable Other Specify (financial) 1. yes 2. no 3. not applicable

COLUMN 9 Sex

COLUMN 10 Age

COLUMN 11 Marital Status

Here some judgement must be used if people state that they are "Other". Using other cues from the form such as sex and number of dependents classify each employee as 1 or 2. If it is not clear, mark "0" for not stated.

COLUMN 12 Number of Dependents

COLUMN 13 Is Trainee or Employee a Single Support Parent?

Unless it is stated in the file definitely, mark "0".

COLUMN 14 Work Desired

Unless it is specifically stated in the file, as on 701 Canada Employment form, mark with a "0".

COLUMN 15 Work Desired

Unless specifically stated, mark with a "0".

COLUMN 16 Do You Have an Automobile?

COLUMN 17 Do You Have Tools?

COLUMN 18 Do You Have Safety Equipment?

COLUMN 19 Do You Have a Driver's License?

COLUMN 20 Languages Spoken Other Than English

If no other language, other than English, is spoken, mark a "0".

COLUMN 21 Other Languages

This will be marked "0", unless a person speaks English plus two other languages.

COLUMN 22 Ancestry

COLUMN 23 If Ancestry Native, State Whether

} determine from the information on the forms in the file

If Ancestry is not stated specifically, mark with a "0".

COLUMN 24 Formal Schooling

COLUMN 25 Training

This category refers to special training for specific task.

1. Means no training for any specific task at a school or other training centre.
2. Means some specific training but not enough to get paper qualification, e.g., one year welding course but not finished.
3. Means someone has completed the training and become qualified.
4. Means on-the-job (not in school) training less than six months.
5. Means on-the-job (not in school) training for six months or more.
6. Academic upgrading.
7. On-the-job experience (not training) in a specific task.

COLUMN 26 Job Classification

COLUMN 27 Work History in Preceding Twelve Months

COLUMN 28 What Job does the Employee Prefer:

If not stated, mark "0".

COLUMN 29 Month Employment Began

COLUMN 30 Year Employment Began

COLUMN 31 Work History in 12 Months Preceding Application for Employment if Stated

COLUMN 32 Number of Jobs Held in 12 Months Preceding Application for Employment

COLUMN 33 If Employee Held More Than One Job in the Previous Year, What was the Average Period of Time Between Jobs?

COLUMN 34 Reasons for Interruptions to the Employee's Work History (Voluntary)

This category refers to any interruptions which the employee initiates.

COLUMN 35 Reasons for Interruptions in work History. (Involuntary)

This category refers to work interruptions beyond the control of the employee.

COLUMN 36 Number of Layoffs Since Employment Began

If no layoffs, mark "9."

If not stated, mark "0."

COLUMN 37 Number of Layoffs in Last 12 Months

If no layoffs, mark "9."

If not stated, mark "0."

COLUMN 38 Average Length of Layoffs in the Last 12 Months

If no layoffs, mark "9."

COLUMN 39 Union Membership

COLUMN 40-43 Beginning Salary

0000 - not stated

0009 - not applicable

State the hourly rate, e.g., 0407 = $4.07

COLUMN 44-47 Current Salary or Terminating Salary

0000 - not stated

0009 - not applicable

State hourly wage, e.g., 1010 = $10.10 per hour

COLUMN 48 In the Preceding Year Was the Employee on Social Assistance?

Unless specifically stated, mark "0." For a person work full time, mark "9."

COLUMN 49 If yes, For How Long?

Unless Column 48 is answered "Yes", Column 49 = "9".

COLUMN 50-54 Income Employment in the Preceding Year

00000 - not stated

00009 - not applicable

Calculate the annual salary (for the last twelve months that the employee was employed)

COLUMN 55, 56, 57 Kinds of Work Experience

If the employee's files contain information regarding previous employment, indicate for three jobs what kinds of work experience the employee had.

For example - 1968 - Cook, British Columbia

1972 - Heavy Equipment Operator, Lac La Biche

1974 - Industrial Worker, Fort McMurray

Then, Column 55 - First Work Experience

Cook, British Columbia - Service (2)

Column 56 - Second Work Experience

Heavy Equipment, Lac La Biche - Construction (5)

Column 57 - Third Work Experience

Industrial Worker, Fort McMurray - Industry (4)

COLUMN 58, 59, 60 Location of Previous Work

(using previous example)

Column 58 - First Work Experience

Cook, British Columbia - Other Province (8)

Column 59 - Second Work Experience

Heavy Equipment, Lac La Biche - Other Northern (4)

Column 60 - Third Work Experience

Industrial Worker, Fort McMurray - Fort McMurray (1)

COLUMN 61-69

Unless a specific problem has been reproted in the file, all will be marked "2."

NOTE: In any cases where doubt occurs, mark either "9" for not applicable or "0" for not stated.

Do not waste time trying to interpret the information if it is not clear or is incomplete.

9.3 BILATERAL ADAPTATION TO IMPROVE NATIVE EMPLOYMENT AND LIVING CONDITIONS IN THE ATHABASCA OIL SANDS REGION

9.3.1 A Research Plan for the Ideal Model

9.3.1.1 Abstract. The following is an outline of a research design proposed to extend the research data base regarding the impact of the oil sands development on the quality of individual and community life of native Canadians in the Athabasca Oil Sands region. This study will address problems identified in the preceding project by focusing on the following specific objective:

> To identify processes by which indigenous peoples in the oil sands region integrate into the labour force in urban resource communities in order to recommend ways to better facilitate alternative means of integration of native people in these communities.

This project will deal with two ways in which native Canadians might successfully adjust to and cope with the industrial work world. The first method assumes that integration is possible only if the individual conforms to his environment. While this approach, unilateral adjustment, has been the traditional approach to integration, more recent approaches look for ways in which both the individual and the environment might change to better accommodate mutual needs. Such approaches entail bilateral adjustments. This study will deal predominantly with the latter form of adaptation. Our approach will look not only for changes the native Canadians can make but will stress that an equal amount of, and maybe even more, attention should be directed toward institutional interventions (i.e., ones aimed at helping the region's industries, educational agencies, and community planning organizations adapt to the needs and characteristics of native Canadians).

A total of seven tasks have been planned to accomplish the purpose of the project. These tasks will produce the following list of products for AOSERP:

1. Native community needs assessment focusing on the characteristics, aspirations, and needs of native Canadians in the Athabasca Oil Sands region.
2. Employer survey regarding the employment of native Canadians and identifying current employment opportunities and five-year occupational trends in this region.
3. Native case studies portraying, for a sample of native persons, background and baseline data about their individual experiences, and their needs and desires with respect to past and present employment opportunities.
4. Ethnographic field study to document in an unobtrusive manner living and working conditions in the urban setting.
5. Summary and critical assessment of employment training programs available to native Canadians in this region.
6. Report of the alternative means for integration and assessment of strategies for native involvement in community planning and bilateral adaptation in the Athabasca Oil Sands region.
7. Executive summary and digested report condensing the findings, conclusions and recommendations into a readily useable form for policy decision makers.

9.3.1.2 Introduction. A study of the "Native Employment Patterns in the Athabasca Oil Sands region has just been completed. The study was designed as a preliminary problem identification, definition, and analysis effort which explored the conditions influencing employment, underemployment, and unemployment of Treaty Indians, non-Treaty Indians, and Metis people residing in and/or working in this geographic region. That study was restricted to using the following three data sources: (1) a review of general literature

on issues of native employment and employment training across North America; (2) a records search and analysis of pertinent documents produced within the Athabasca Oil Sands region (e.g., records of manpower agencies, training institutions, and major employers); and (3) preliminary fact-finding interviews with persons from Native Outreach, employment-related institutions, training agencies, government offices, and businesses and industries in the region. The follow-up study outlined in this proposal recommends a 16-month investigation to plan, implement, and evaluate alternative solutions to some of the more critical employment and quality of individual and community living problems identified by the preceding study. The proposed effort will help to build upon a completed activity it supported but also to initiate an action-oriented exploration of potential solutions to critical human problems being experienced by native Canadians because of rapid and comprehensive technological changes in the Athabasca Oil Sands region.

9.3.1.3 Need for the study. The following concerns were identified in the preceding study and are basic to the decision needs that should be addressed by this present project:

1. Over 150 barriers to the employment of native people were identified. These covered the following seven categories of factors: (a) economic, (b) social and cultural, (c) education and training, (d) health, (e) political and jurisdictional, (f) recruitment and selection procedures, and (g) unions.
2. Much of the available information on native employment patterns assumes that all native people are alike and fails to take into account regional, educational, tribal, generational, and other distinctive differences within the native population. Important discriminating variables for native Canadians in the Athabasca Oil Sands region seem to be: status, tribe, generation, and kin. Differences related to these variables cannot be ignored.

3. A similar generalization is that native people prefer outdoor, part-time, and seasonal jobs. The records search conducted by the staff of the preceding project indicated that the native employees overwhelmingly wanted permanent, full-time work.
4. There is a tendency to assume that native employment, underemployment, and unemployment problems are the fault of the native people themselves. The correlated solution usually proposed entails helping them "adjust" or "integrate", or "fit into" the conditions and constraints of the more dominant society. Such a unilateral approach tends to ignore the possibility that in many problems bilateral improvements might be most appropriate. Such changes would require that the social, political, economic, and physical environment of the major cultural group be adapted to fit the needs and characteristics of native Canadians and would request that native people adapt their patterns at the same time. The words "integrate" and "adjustment" usually connote unilateral change on the part of native Canadians without demanding modifications in environmental events and conditions. For that reason, these words are avoided in the remainder of this proposal. They are replaced by the word "adaptation", unilaterally and bilaterally. Both types, however, being alternative means of integration.
5. The findings of the preceding problem definition study suggest that subsequent research on native employees must not ignore the extra-work environment in which they live. Consideration must be given to the impact that work has on employees' other roles such as those involved in community, tribal, and family memberships and, reciprocally, how such memberships influence work attitudes and performance.

6. Many of the basic assumptions used to fund and maintain training programs for native Canadians are seriously in need of a critical review. The preceding study revealed that at least the following questions highlight the desirability of carefully evaluating such programs:
   (a) consistent with the limited evidence available to the preceding study, and contrary to popular belief, is it true that increased training of native people might not be contributing significantly to decreasing their unemployment rates? Is it possible that such training has become a big business but has not delivered on the initial expectations? If this is the case, has such training led to frustration--i.e., native Canadian trainees have acquired employment skills but no job guarantees; they have developed higher job aspirations but have experienced a dearth of employment opportunities?
   (b) do native people require and benefit from pre-employment training or should all training be job specific and be initiated only after they begin their employment? Do life skills (or coping skills) training programs, the Industrial Workers Course, and academic upgrading produce significant gains in the job and life satisfaction and success of the native Canadians who experience them? Is such training clearly related to actual job requirements in the Athabasca Oil Sands region? Will employers in this region recognize and reward credentials native Canadians earn in these programs? Since a large percentage of native trainees does not successfully complete such programs, what effect does this have on their employability

and employment experiences? Do the results they experience differ markedly from those of similar but successful training participants? Absenteeism rates and reasons need to be sensitively investigated, if consistent participation in such training programs is found to produce improved employability to increase the employment rates of native Canadians.

(c) do native Canadians need to be relocated to industrial sites in order to receive job-specific training? Can training be offered on a cost-efficient basis in satellite communities in the Athabasca Oil Sands region so trainees can remain in their families and home locations? Would such localized training produce the same or even more acceptable outcomes for the native people than does current training which is based at industrial sites?

(d) to what extent are native Canadians encouraged to participate in the design, development, management, and evaluation of employment training programs established for them? If such opportunities occur, what is the nature and degree of native involvement and impact? Is increased involvement highly positively correlated with program success? Were community expectations and long-range employment projections (i.e., job opportunities and trends) carefully considered in planning current training programs? Are they receiving close attention in planning new programs?

(e) what is the nature and level of the jobs for which native Canadians are receiving training? Are they primarily low level, unskilled, labour jobs? Are the competencies that are required for technical

and professional jobs clearly stated and is appropriate competency-based training available for those native Canadians who are both interested and qualified (i.e., possess the requisite skills to take this training)?

(f) how do the native trainees, employees, community members, and community leaders perceive and feel about the available training (pre-employment and employment)? To what degree do the training priorities of current native students match those explicit in the available training programs?

(g) how functional are the jurisdictional responsibilities of the multiple agencies that are involved in providing training to native Canadians? What are the positive and negative effects of such distinctions? Are there better organizational structures?

9.3.1.4 Purpose of the study. The proposed study will continue an investigation of the impact of the oil sands development on the quality of individual and community life--especially the qualify of working life and work-related community-living conditions--of native Canadians in the Athabasca Oil Sands region. This study will concentrate on Treaty and non-Treaty Indians and Metis people in the region. The term "native Canadians" is used when referring to such persons throughout this plan. The study will focus on the needs and characteristics of people who either are indigenous to the region, who are transient in it, or who are "in-migrants to it." The general goal of the study will be:

> To identify processes by which indigenous peoples in the Athabasca Oil Sands region integrate into the labour force in urban resource communities in order to recommend ways to better facilitate alternative means of integration of native people in these communities.

More specifically the study will be designed to: (1) document, in a scientifically rigorous manner, the social, economic, political, and cultural changes (desirable as well as undesirable ones) that native Canadians have experienced in at least the work-related aspects of their lives; and (2) produce findings and recommendations for ways that the desirable changes can be maintained, or even increased, and the deleterious effects can be minimized.

To identify and assess alternative means by which indigenous people might be integrated into the labour force in urban resource communities, it is necessary to sequence five discrete research studies and then to analyze congruencies and discrepancies in the findings between and among each component. These analyses will help to identify conflict areas and provide a base for recommending possible strategies for avoiding potential social problems as indigenous people are integrated into the urban work environment. The components of the overall research project and the dynamics of their inter-relationship are illustrated diagrammatically in Figure 1.

9.3.1.5 Theoretical perspective. The problem of bilateral adaptation of native workers to modern industrial and urban societies in the north is an immediate problem of practical concern for the lives of native peoples and for their potential employers. Fortunately, it is not necessary to start from the beginning in deriving an understanding of feasible solutions to the problem. Modern sociology has grown to the point where it offers several useful concepts and theoretical explanations to assist in understanding practical alternatives.

The framework which has been adopted for this study is one which takes two points of departure as the central objects of study. From one point of view, the study is about *the individual within his/her culture*. Assuming a set of basic human needs, how are the needs satisfied in a general sense by social structures?

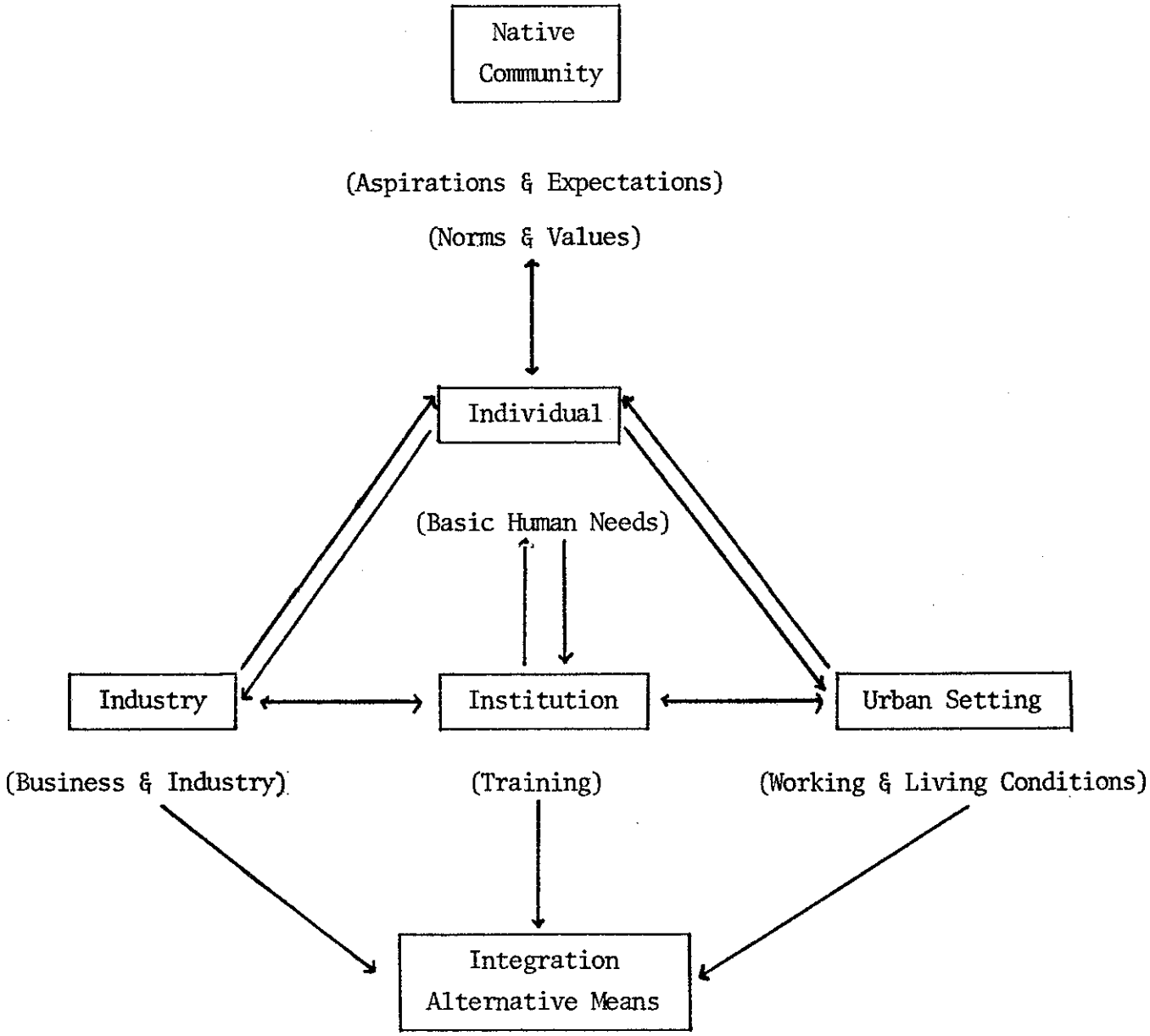


Figure 2. Bilateral Adaptation Contingency Variables.

How, in particular, can the basic human needs of native peoples be satisfied by an (adapted) urban industrial social structure? From another point of view, the study is about the *community and its present or evolving culture*. Communities have structures which reflect, or, in a normatively pathological case, fail to reflect their cultures. Communities have needs, aspirations and values which can grow, flourish or decay in a manner analogous to those of the individual. How do communities in general adapt to migrant individuals who do not bring a congruent set of value systems? How, in particular, must the communities of interest in this study--the native community, the urban setting, industry and business, and the educational/training institutions--adapt to the realities of a work force composed of individuals who are not socialized to their ways?

The task is one of determining the means whereby a new culture, and a new social structure, can emerge from the amalgamation of features which are presently distinct. The term "bilateral adaptation" is a useful one because it describes an alternative means of integration that we believe is a good one. It stresses the critical assertion that industrial society must accommodate to the native peoples just as native persons must accommodate themselves in reverse. However, the end result of the process will be a phenomenon which has passed beyond a stage described as "bilateral adaptation." It will be a new culture, a new structure, derived from the characteristics of all the distinct elements which entered into it. The recommendations of this study will be designed to facilitate the emergence of a structure of maximum benefit to all its constituents.

The research instruments, and the analysis which will follow upon the research data, will be based on these two fundamental premises: that individuals have needs which must be satisfied through their surrounding culture and its own particular social structure; and, that cultures and communities have identifiable dynamic and static characteristics which require certain

responses from member individuals, and which will eventually have impact upon member individuals. A complete discussion of the theoretical perspective is presented in Section 9.3.1.6.

9.3.1.6 Theoretical perspective: context of bilateral adaptation. This section presents a complete discussion of the theoretical perspective basic to the diagram of Figure 1.

9.3.1.6.1 The individual within his/her culture.

The major conceptual effort of this study will lie within the concepts of culture and community, and of the aspirations, values and norms of community. Nonetheless, a few words concerning theories of the individual are in order.

Psychologists, in their search for theoretical formulations of the structure and stages of human life, have approached the study of the individual from several vantage points. One approach has been to attempt to classify human behaviour by reducing it to a set of (presumed) basic derivative human needs. The hierarchical system of Maslow is probably the best known example of this approach.[1] He proposes a five-level tier of needs, which reads as follows from the lowest to the highest: for physiological provision (food, shelter, etc.); for security (psychological, as well as other forms; freedom from constant expectation of assault); for social inclusion (belonging); for self-esteem; and to self-actualize. Research evidence does not completely support Maslow's contention that the list is hierarchical. It would appear that all types of needs can play simultaneously within the individual. Nonetheless, the list is comprehensive, can subsume considerable explanatory data from other investigators, and points to important dimensions of human existence.

A second approach has been to classify human behaviour in terms of developmental stages, on the assumption that adult life has patterns of growth embedded within it analogous to the physical

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[1] See Maslow, A.H. Motivation and Personality. New York: Harper, 1954.

developmental stages of the young child. Erickson's formulation of the eight-stage pattern of the life-cycle (successive attainment of trust, autonomy, initiative, industry, identity, intimacy, generativity and ego integrity) is one well-known example of this school of study.[2] Other psychologists have dealt with the need for adequate, tempered sensory inflow and stimulation to the maintenance of health. Still others have studied the out-going cognitive and aspirational requirements of the normal functioning adult. The importance within this study of this type of psychological study is the assertion, which surely needs no demonstration, that the individual must satisfy his needs, must progress through his developmental stages, must find his cognitive stimulation, etc., with reference to and within his own cultural community group. *The processes of adaptation are more easily understood if the characteristics of the individuals who must adapt can be understood.*

The choice of psychological theory for this study is limited by the fact that the cognitive, emotional and aspirational processes of native individuals have not been extensively researched. There are not the resources or the underlying base of theoretical knowledge to explore the typical life-cycle stages of native individuals. While contemporary psychological theory might be valid for white people, its validity when applied to native Canadians is uncertain. For this reason, the need system posited by Maslow will be a rough guide for topics to be examined. A more sophisticated derivation of psychological theory will not be built. Future directions in the process of bilateral adaptation will be structures to account for the variables which are beyond this investigation.

9.3.1.6.2 Community and its present or evolving culture. There is an enormous and rapidly growing literature available today in the fields of culture and community. The traditional sociological

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[2] See Erikson, E.H. Childhood and Society, 2nd ed. New York: Norton, 1963.

theories, while still undergoing development and expansion, have been supplemented by a multidisciplinary literature directed at concepts of social change, by a plethora of works on organizations and work organizations in particular, and by increasing concern with subcultures, both from within and without North American society. Social psychology, political science, social welfare and schools of business are all producing literature to complement that which is usually termed "sociological." As with the psychological theory, in order to keep the focus of study manageable and to encompass the diversity of communities to be studied, sociological theory will be of a very basic level.

Robert Merton provides an exposition of a sociological framework of culture and society which is well-suited to our purposes.[3] Merton is concerned to derive a theory of society which will account for both conformist and deviant forms of behaviour, where both orientations are derivable as a "normal" response to the social structure. In his view, there are two basic components to any social system. The first component is that of cultural goals. Goals often go by other names; they are those values, norms, intentions, ideals, aspirations, etc. which are valued by the culture. They generally have emotional energy attached to them, and they become foci of individual striving. The second component is that of societal regulatory functions. Controls on appropriate forms of behaviour, on allowable means of reaching the goals, are exerted in a side array of institutions, mores, formal and informal sanctions, etc. Merton expands on the theory of controls by noting that they are exercised through the four "p's": by prescription, by preference, by permission and by proscription.

A culture is in balance when the culturally-promoted goals and the legitimate means to attain these goals are in relative harmony. The culture falls out of balance when either component is given extreme importance and the other is devalued to the point of

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[3] See Merton, R.K. Social Theory and Social Structure, 1968 ed. New York: Free Press, 1968.

meaninglessness. A culture with goals but an inadequately sanctioned means of access is likely to be one with high rates of deviancy, whereas a culture with little emphasis on goals but strong emphasis on modes of behaviour is likely a ritualized, conformist society. Merton asserts that American society is showing characteristics of the former and, clearly, it represents the problem which must be avoided in the northern communities. The relatively high incidence of social problems among natives in the southern cities is indication of the common disparity between urban cultural goals, urban sanctioned modes of access and native capacities.

Application of the theory to research practise is complicated by the additional observation that, whereas some goals are culture-wide and appear to cut across all socioeconomic strata, others are peculiar to subcultures within the larger society. "Subculture" may be defined in either racial or economic terms. On the other hand, perception of control mechanisms tends to be differentiated from one economic stratum to another. Sociologists have advanced the concept of reference group, the group with which one identifies in order to extract normative standards, to formally study how individuals ally themselves with various modes of thinking. Reference group theory can also be linked to the concept of social status within the larger society. Our investigation will seek to find the similarities and dissimilarities of goals and perceived sanctions among the various strata of the groups to be studied.

Merton's formulations do consider, to some extent, the dynamic processes behind social change. For example, one possible response to a disparity between culturally-promoted values and culturally-sanctioned means is rebellion. The rebellious orientation is accompanied by a vision of a new social order in which the disparities will not exist. Theory asserting a dialectical nature of social change is useful in understanding the historical processes of change in an evolving society. It is not so useful in understanding the processes which must be undergone in order to create the evolution of a newly and quickly created society. In

determining the bases of our questioning towards viable alternatives to promote a beneficial social structure, we will not draw extensively on traditional sociological theory. Rather, we will make use of the directions and procedures which our literature review has highlighted as being productive in other settings. The bases for structuring our investigation into change concepts will be empirical and pragmatic rather than theoretical.

Other sociologists have provided descriptions of the common structural components of societies, within which the cultural norms and values and the social controls are embedded. One author lists the following major components:[4]

1. Institutions--the formalized patterns of action or social relationship.
2. Ideas: beliefs, knowledge and values--the cognitive structures pertaining to cultural goals and sanctions.
3. Material culture--the physical things which a culture acquires and uses.

A further component which is particularly salient in northern communities is the physical environment. The severity of the climate creates constraints on human interaction which are different from those where the milder climate facilitates more movement outdoors. In the investigation of the various communities, the existing institutions, the ideas which they express, the material and building forms, and the climate interact to create distinctive cultural norms and sanctions will be closely studied.

The preceding discussion has referred to generalized sociological theory of culture. An extensive literature on this theory as applied to the area's communities is available. Where it is appropriate, use will be made of the more specialized literature. For example, sociologists (Merton among them) have analyzed the particular norms and values which are reflected in urban industrial society. (Money, for example, is seen to be highly valued in and

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[4] See Chinoy, Ely and John P. Hewitt. Sociological Perspective, 3rd ed. New York: Random House, 1975.

of itself.) Literature on the sociology of training institutions is also available. The disentanglement between the goal and sanction systems of traditional industry, and the goals and sanction systems of existing native communities, will be one of the key analytical tasks of the study. Several facts already known are: that the urban community tends to have a work-culture with distinctive norms and sanctions which are not necessarily ties to home and family, whereas the native work-system has traditionally been embedded within family and communal life; that urban society has received more of its patterning through traditional educational systems than has the native; and that the native culture (which is in fact a collection of differentiated "cultures") has already been influenced, for better or for worse, by urban industrial culture. In the design of the techniques of this study, the task will be to make use of traditional understanding of native communities, while remaining sensitized to the unique and particular conditions and circumstances in the urban work environment.

10. AOSERP RESEARCH REPORTS

1.		AOSERP First Annual Report, 1975
2.	AF 4.1.1	Walleye and Goldeye Fisheries Investigations in the Peace-Athabasca Delta--1975
3.	HE 1.1.1	Structure of a Traditional Baseline Data System
4.	VE 2.2	A Preliminary Vegetation Survey of the Alberta Oil Sands Environmental Research Program Study Area
5.	HY 3.1	The Evaluation of Wastewaters from an Oil Sand Extraction Plant
6.		Housing for the North--The Stackwall System
7.	AF 3.1.1	A Synopsis of the Physical and Biological Limnology and Fisheries Programs whithin the Alberta Oil Sands Area
8.	AF 1.2.1	The Impact of Saline Waters upon Freshwater Biota (A Literature Review and Bibliography)
9.	ME 3.3	Preliminary Investigations into the Magnitude of Fog Occurrence and Associated Problems in the Oil Sands Area
10.	HE 2.1	Development of a Research Design Related to Archaeological Studies in the Athabasca Oil Sands Area
11.	AF 2.2.1	Life Cycles of Some Common Aquatic Insects of the Athabasca River, Alberta
12.	ME 1.7	Very High Resolution Meteorological Satellite Study of Oil Sands Weather: "A Feasibility Study"
13.	ME 2.3.1	Plume Dispersion Measurements from an Oil Sands Extraction Plant, March 1976
14.		
15.	ME 3.4	A Climatology of Low Level Air Trajectories in the Alberta Oil Sands Area
16.	ME 1.6	The Feasibility of a Weather Radar near Fort McMurray, Alberta
17.	AF 2.1.1	A Survey of Baseline Levels of Contaminants in Aquatic Biota of the AOSERP Study Area
18.	HY 1.1	Interim Compilation of Stream Gauging Data to December 1976 for the Alberta Oil Sands Environmental Research Program
19.	ME 4.1	Calculations of Annual Averaged Sulphur Dioxide Concentrations at Ground Level in the AOSERP Study Area
20.	HY 3.1.1	Characterization of Organic Constituents in Waters and Wastewaters of the Athabasca Oil Sands Mining Area
21.		AOSERP Second Annual Report, 1976-77
22.		Alberta Oil Sands Environmental Research Program Interim Report to 1978 covering the period April 1975 to November 1978
23.	AF 1.1.2	Acute Lethality of Mine Depressurization Water on Trout Perch and Rainbow Trout
24.	ME 1.5.2	Air System Winter Field Study in the AOSERP Study Area, February 1977.
25.	ME 3.5.1	Review of Pollutant Transformation Processes Relevant to the Alberta Oil Sands Area

26.	AF 4.5.1	Interim Report on an Intensive Study of the Fish Fauna of the Muskeg River Watershed of Northeastern Alberta
27.	ME 1.5.1	Meteorology and Air Quality Winter Field Study in the AOSERP Study Area, March 1976
28.	VE 2.1	Interim Report on a Soils Inventory in the Athabasca Oil Sands Area
29.	ME 2.2	An Inventory System for Atmospheric Emissions in the AOSERP Study Area
30.	ME 2.1	Ambient Air Quality in the AOSERP Study Area, 1977
31.	VE 2.3	Ecological Habitat Mapping of the AOSERP Study Area: Phase I
32.		AOSERP Third Annual Report, 1977-78
33.	TF 1.2	Relationships Between Habitats, Forages, and Carrying Capacity of Moose Range in northern Alberta. Part I: Moose Preferences for Habitat Strata and Forages.
34.	HY 2.4	Heavy Metals in Bottom Sediments of the Mainstem Athabasca River System in the AOSERP Study Area
35.	AF 4.9.1	The Effects of Sedimentation on the Aquatic Biota
36.	AF 4.8.1	Fall Fisheries Investigations in the Athabasca and Clearwater Rivers Upstream of Fort McMurray: Volume I
37.	HE 2.2.2	Community Studies: Fort McMurray, Anzac, Fort MacKay
38.	VE 7.1.1	Techniques for the Control of Small Mammals: A Review
39.	ME 1.0	The Climatology of the Alberta Oil Sands Environmental Research Program Study Area
40.	WS 3.3	Mixing Characteristics of the Athabasca River below Fort McMurray - Winter Conditions
41.	AF 3.5.1	Acute and Chronic Toxicity of Vanadium to Fish
42.	TF 1.1.4	Analysis of Fur Production Records for Registered Traplines in the AOSERP Study Area, 1970-75
43.	TF 6.1	A Socioeconomic Evaluation of the Recreational Fish and Wildlife Resources in Alberta, with Particular Reference to the AOSERP Study Area. Volume I: Summary and Conclusions
44.	VE 3.1	Interim Report on Symptomology and Threshold Levels of Air Pollutant Injury to Vegetation, 1975 to 1978
45.	VE 3.3	Interim Report on Physiology and Mechanisms of Air-Borne Pollutant Injury to Vegetation, 1975 to 1978
46.	VE 3.4	Interim Report on Ecological Benchmarking and Biomonitoring for Detection of Air-Borne Pollutant Effects on Vegetation and Soils, 1975 to 1978.
47.	TF 1.1.1	A Visibility Bias Model for Aerial Surveys for Moose on the AOSERP Study Area
48.	HG 1.1	Interim Report on a Hydrogeological Investigation of the Muskeg River Basin, Alberta
49.	WS 1.3.3	The Ecology of Macrobenthic Invertebrate Communities in Hartley Creek, Northeastern Alberta
50.	ME 3.6	Literature Review on Pollution Deposition Processes
51.	HY 1.3	Interim Compilation of 1976 Suspended Sediment Date in the AOSERP Study Area
52.	ME 2.3.2	Plume Dispersion Measurements from an Oil Sands Extraction Plan, June 1977

53.	HY 3.1.2	Baseline States of Organic Constituents in the Athabasca River System Upstream of Fort McMurray
54.	WS 2.3	A Preliminary Study of Chemical and Microbial Characteristics of the Athabasca River in the Athabasca Oil Sands Area of Northeastern Alberta
55.	HY 2.6	Microbial Populations in the Athabasca River
56.	AF 3.2.1	The Acute Toxicity of Saline Groundwater and of Vanadium to Fish and Aquatic Invertebrates
57.	LS 2.3.1	Ecological Habitat Mapping of the AOSERP Study Area (Supplement): Phase I
58.	AF 2.0.2	Interim Report on Ecological Studies on the Lower Trophic Levels of Muskeg Rivers Within the Alberta Oil Sands Environmental Research Program Study Area
59.	TF 3.1	Semi-Aquatic Mammals: Annotated Bibliography
60.	WS 1.1.1	Synthesis of Surface Water Hydrology
61.	AF 4.5.2	An Intensive Study of the Fish Fauna of the Steepbank River Watershed of Northeastern Alberta
62.	TF 5.1	Amphibians and Reptiles in the AOSERP Study Area
63.	ME 3.8.3	Analysis of AOSERP Plume Sigma Data
64.	LS 21.6.1	A Review of the Baseline Data Relevant to the Impacts of Oil Sands Development on Large Mammals in the AOSERP Study Area
65.	LS 21.6.2	A Review of the Baseline Data Relevant to the Impacts of Oil Sands Development on Black Bears in the AOSERP Study Area
66.	AS 4.3.2	An Assessment of the Models LIRAQ and ADPIC for Application to the Athabasca Oil Sands Area
67.	WS 1.3.2	Aquatic Biological Investigations of the Muskeg River Watershed
68.	AS 1.5.3 AS 3.5.2	Air System Summer Field Study in the AOSERP Study Area, June 1977
69.	HS 40.1	Native Employment Patterns in Alberta's Athabasca Oil Sands Region
70.	LS 28.1.2	An Interim Report on the Insectivorous Animals in the AOSERP Study Area
71.	HY 2.2	Lake Acidification Potential in the Alberta Oil Sands Environmental Research Program Study Area
72.	LS 7.1.2	The Ecology of Five Major Species of Small Mammals in the AOSERP Study Area: A Review
73.	LS 23.2	Distribution, Abundance and Habitat Associations of Beavers, Muskrats, Mink and River Otters in the AOSERP Study Area, Northeastern Alberta
-	--	Interim Report to 1978
74.	AS 4.5	Air Quality Modelling and User Needs
75.	WS 1.3.4	Interim report on a comparative study of benthic algal primary productivity in the AOSERP study area

76.	AF 4.5.1	An Intensive Study of the Fish Fauna of the Muskeg River Watershed of Northeastern Alberta
77.	HS 20.1	Overview of Local Economic Development in the Athabasca Oil Sands Region Since 1961.
78.	LS 22.1.1	Habitat Relationships and Management of Terrestrial Birds in Northeastern Alberta.
79.	AF 3.6.1	The Multiple Toxicity of Vanadium, Nickel, and Phenol to Fish.
80.	LS 22.3.1	Biology and Management of Peregrin Falcons (*Falco peregrinus anatum*) in Northeastern Alberta.
81.	LS 22.1.2	Species Distribution and Habitat Relationships of Waterfowl in Northeastern Alberta.
82.	LS 22.2	Breeding Distribution and Behaviour of the White Pelican in the Athabasca Oil Sands Area.
83.	LS 22.2	The Distribution, Foraging Behaviour, and Allied Activities of the White Pelican in the Athabasca Oil Sands Area.

These reports are not available upon request. For further information about availability and location of depositories, please contact:

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