PROGRAM EVALUATION

Post-Secondary Education

Demand Forecasting System

Indian and Northern Affairs
Indian and Inuit Affairs Program
Program Evaluation Branch

Post-Secondary Education

Demand Forecasting System

Department of Indian Affairs and Northern Development

Post - Secondary Education Demand Forecasting System

PEAT MARWICK AND PARTNERS

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TABLE OF CONTENTS

PEAT MARWICK AND PARTNERS

ACKNOWLEDGEMENTS

The following individuals comprised the Steering Committee which assisted us in preparing this report.

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PEAT MARWICK AND PARTNERS

POST-SECONDARY EDUCATION DEMAND FORECASTING SYSTEM

EXECUTIVE SUMMARY

This study was designed to uncover the reasons for the Department's present difficulties in making accurate projections of the demand for post-secondary education assistance as defined in Program Circular E-12 and, based on the findings, to recommend ways to improve the reliability of the projections. The study was conducted by investigating how E-12 is actually administered in different Regions and Districts, with a specific focus on how projections are made.

Two kinds of projections are being made: the numbers of students entering post-secondary institutions and the total amount of funding required for them. It was intended, within the terms of reference, that the investigation concentrate on enrollment projection figures. However, in this report we make several references to cost projections when they clearly impact on enrollment.

It should be noted that near the completion of this study, two major modifications were made to the way in which the E-12 program is managed. The Department has developed a computer information system for record keeping and the post-secondary budget has been made non-discretionary. The impact of these changes on the projection process has yet to be determined. They are likely to alleviate some of the difficulties and problems we have outlined in this report. However, our major findings refer to the projection process being used prior to the introduction of these modifications.

This summary briefly describes the major findings, and then the recommendations.

Major Findings

1. Post-secondary education is administered on a national basis with scanty documented administrative procedure. There is no proper administration manual defining administrators' responsibilities, and key administration procedures. Similarly, there has been no properly documented information system to give reliable statistics for year-to-year planning or long term planning. In summary, the administrative practices associated with effective post-secondary education fall far short of the standard of good practice on a national basis.

2. The lack of national administrative standards results in wide regional variations in actual administrative practices, and in the quality of the results. Some Districts and Regions can consistently project both enrollments and costs to within 5% accuracy. The same Districts and Regions are also able to maintain similarly accurate statistics. However, most Districts and Regions visited do not manage to develop accurate projections, nor are they able to maintain proper statistics.

3. The enrollment projection process used by most Districts and Regions is quite straightforward. However, the accuracy of this method depends on the extent to which actual individuals are identified and also on the reliability of past data. Projections are typically made by taking counts of students currently enrolled, subtracting those graduating, and adding in those high school students and mature individuals identified as potential post-secondary students. Percentage figures based on past statistics may be used instead to estimate the number of potential students.

4. <u>The key to success in Districts which make accurate projections lies in the counsellors' approach to their duties</u>. Where counsellors maintain an intensive program of student and community contacts and keep good records of these contacts, year-to-year projections are accurate.

5. <u>The Monthly Statistical Reports, when they are completed at all, are filled with errors to the extent that they serve no useful purpose.</u> In recognition of this, Districts and Regions across the country have developed a wide range of bootleg information systems to meet local needs.

6. <u>Recognizing the weakness of the Monthly Statistical Reports, the Department has developed a computer information system (Continuing Education Information System, or CEIS)</u>. The system design is quite comprehensive in its coverage of students who have applied for, or are receiving assistance. It is not meant to include potential students who have not formally applied. For projection purposes, other information will be required. At the time of this writing, CEIS is currently being pre-tested in Ontario.

7. <u>In the past, the discretionary status of the post-secondary budget created havoc with planning at the District and Region level</u>. In some areas of the country, the post-secondary budget was subject to wild fluctuations as it won or lost its annual competitions with other programs. One effect of this was to make it appear, a year or so later, that demand was varying when in fact it was the allocated budget varying. A recent directive (April, 1979) made it post-secondary budget non-discretionary. This should do a great deal to solve the problem, provided that the Districts can make accurate projections.

8. <u>Certain inadequacies in the overall administration system for post-secondary education may be the cause of a variety of problems encountered by students.</u> The problems have included:
   - not getting funds, even though eligible
   - being cut off for no apparent reason
   - lack of information about when to apply; and so on.

   They also suffer because of the ping-pong budget negotiations between various governmental levels, which leads to unreliable funding. Enrollment potential may depend on whether adequate monies are guaranteed available. Most of these problems are reflections of the inadequacies in the overall administrative system for post-secondary education.

<u>Recommendations</u>

Our recommendations reflect the view that problems in the projection process are outcomes of post-secondary education's overall administrative weaknesses. Consequently, our solution is an administrative one, and is aimed to be national in scope. Its aims are as follows:

1. To achieve consistent and efficient administration of E-12, design a proper post-secondary education administration system, and document it in an administration manual. This manual should include such information as:
   - explicit descriptions of the responsibilities and duties of all persons connected with the program, including cross-references to job descriptions
   - descriptions of paper flow for key sub-systems

- clear statements of policy and decision-making precedents

- scheduling and timing of key operations

- procedures and standards for daily clerical functions and quality assurance.

A procedural document that includes specific practices found in our field work should be developed to support the E-12 circular.

2. Having developed a nationally functioning administrative system, the Department should develop specific directives on how projections are to be made. It should then aim to produce enrollment and budget estimates accurate to plus or minus 5%.

3. Do not implement CEIS for post-secondary students until an administrative system has been designed and it is clear that CEIS will be consistent with, and relevant to, the administrative system. The information system should be regarded as a <u>support</u> function and not a substitute for an administration system. It should document and define items such as:

   - the data to be collected
   - data processing, checking, security, and routing procedures
   - use of statistics and reporting.

Recommendations 1 and 3 are given in more detail on pages 8 and 9, in the form of standards of good administrative practice.

4. To improve administrative effectiveness and thereby reduce student problems, produce a student information brochure giving practical directions on applying for and maintaining assistance. Post-secondary students should participate in its development.

5. Formalize the appeal system outlined in E-12, setting precedents and promulgating decisions to Departmental offices. This would be the primary mechanism for up-dating and modifying the administrative system.

6. Implementation of recommendations 1 and 3 should be done as two separate tasks, the first consisting of designing and documenting the administrative system, and the second, integrating it with CEIS.

It must be noted that these recommendations will apply only to those areas where post-secondary education is under direct authority of the Department, and not to Bands administering their own education funds. Such Bands should be encouraged to follow or adopt the standards of good administrative practice outlined in this report.

The last section of the report describes a specific plan for implementing these recommendations, and a review of what would be achieved.

METHODE DE PREVISION DE LA DEMANDE
EN MATIERE D'EDUCATION POSTSECONDAIRE

RESUME DE L'ETUDE

La présente étude a été entreprise en vue de découvrir à quoi sont attribuables les difficultés qu'éprouve actuellement le Ministère dans ses projections de la demande d'aide en matière d'éducation postsecondaire, telles qu'elles sont définies dans la circulaire E-12 du Programme, et de proposer, en se fondant sur les conclusions tirées, des moyens d'obtenir des prévisions plus justes. Pour mener cette étude, nous avons examiné la façon dont sont appliquées les directives de la circulaire E-12 dans différentes Régions et différents districts en mettant l'accent sur le mode d'établissement des prévisions.

Les prévisions sont de deux types, c'est-à-dire le nombre d'étudiants qui s'inscrivent dans des établissements d'enseignement postsecondaire et la somme des fonds nécessaires. Il avait été décidé, au moment de délimiter le sujet de l'étude de se concentrer sur les prévisions du nombre d'inscriptions. Toutefois, nous parlerons à plusieurs reprises des prévisions de coût qui ont une nette influence sur les inscriptions.

Il importe de souligner que peu avant la fin de l'étude, deux modifications importantes ont été apportées à la façon dont le programme E-12 est administré. D'une part, le Ministère a mis sur pied un fichier informatique et d'autre part, le budget affecté à l'éducation postsecondaire est devenu non discrétionnaire. La portée de ces modifications sur l'établissement des prévisions reste à déterminer. Elles vont sans doute atténuer quelques-unes des difficultés soulignées dans le rapport. Cependant, les principales conclusions qu'il renferme portent sur le mode d'établissement des prévisions en usage avant que ne soient apportées les modifications mentionnées ci-dessus.

Le présent résumé expose brièvement les principales conclusions de l'étude et les propositions qui en découlent.

Principales conclusions

1. Il existe très peu de directives écrites sur l'administration du programme d'éducation postsecondaire, qui est assurée à l'échelle nationale. Il n'existe aucun guide pertinent exposant les tâches des administrateurs ni aucune directive administrative de base. Il n'y a en outre aucun système d'information complet capable de fournir des statistiques sûres pour les travaux de planification annuelle ou à long terme. Bref, les méthodes administratives destinées à assurer l'efficacité du programme d'éducation postsecondaire sont loin de correspondre à l'idéal élevé de qualité qui devrait être la norme à l'échelle nationale.

2. L'absence de normes administratives nationales dans ce domaine donne lieu à des écarts considérables d'une région à l'autre sur le plan des méthodes employées et de la qualité des résultats obtenus. Certains districts et certaines Régions arrivent presque toujours à prévoir le nombre d'inscriptions et les coûts avec une

.../2

marge d'erreur de moins de 5%. Ils peuvent en outre établir des statistiques tout aussi exactes. Cependant, la plupart des districts et des Régions touchés par notre étude n'arrivent ni à faire des prévisions justes ni à établir des statistiques valables.

3. Le mode d'établissement des prévisions du nombre d'inscriptions employé par la plupart des districts et des Régions est assez simple. L'exactitude de cette méthode dépend toutefois de la mesure dans laquelle on arrive à déterminer le nombre réel des personnes inscrites, ainsi que de l'exactitude des données recueillies par le passé. On établit habituellement les prévisions en comptant le nombre d'étudiants inscrits, en soustrayant de ce nombre ceux dont c'est la dernière année d'études et en y ajoutant les élèves du secondaire et les candidats sérieux qui pourraient éventuellement s'inscrire à un programme d'enseignement postsecondaire. On pourrait également se servir des pourcentages calculés d'après les statistiques établies pour les années précédentes pour évaluer le nombre possible des nouveaux arrivants.

4. Dans les districts où l'on fait des prévisions justes, la clé du succès réside dans la façon dont les conseillers s'acquittent de leurs fonctions. En effet, quand les conseillers entretiennent des rapports étroits avec les étudiants et la collectivité et prennent note des renseignements pertinents qu'ils recueillent ainsi, les prévisions annuelles sont exactes.

5. Les rapports statistiques mensuels, si tant est qu'on les remplisse, renferment tellement d'erreurs qu'ils deviennent inutiles. Face à cette situation, des districts et des Régions du pays ont établi une vaste gamme de réseaux leur permettant de recueillir des renseignements çà et là afin de répondre aux besoins locaux.

6. Conscient des lacunes des rapports statistiques mensuels, le Ministère a mis sur pied un système informatique (Système d'information de l'éducation permanente - S.I.E.P.). Les renseignements en mémoire sur les étudiants qui ont demandé ou reçu de l'aide sont passablement complets. Le système ne comporte cependant aucune fiche sur les candidats possibles qui n'ont pas soumis de demande officielle. Il faudra donc obtenir d'autres renseignements si l'on veut pouvoir faire des prévisions. Au moment de la rédaction du présent rapport, le S.I.E.P. était mis à l'essai en Ontario.

7. Autrefois, en raison de la nature discrétionnaire du budget affecté à l'éducation postsecondaire, c'était un véritable chaos dans les districts et les Régions quand venait le temps pour eux de planifier. Dans certains secteurs du pays, le budget consacré à l'éducation postsecondaire faisait l'objet de fluctuations considérables selon que le programme gagnait ou perdait chaque année de l'importance par rapport aux autres programmes. Entre autres conséquences, cette situation donnait l'impression, environ un an après, que la demande variait, alors qu'en fait, c'est le budget qui fluctuait. Une directive adoptée récemment (avril 1979) rendait ce budget non discrétionnaire. Une telle mesure devrait contribuer largement à résoudre le problème, à condition toutefois que les districts puissent faire des prévisions justes.

.../3

8. Certains défauts du processus d'administrations du programme peuvent être à l'origine d'une foule de problèmes auxquels se heurtent les étudiants et dont voici quelques exemples:

   - certains étudiants ne reçoivent pas de fonds, même s'ils y ont droit;
   - certains sont exclus du programme sans raison apparente;
   - beaucoup ne savent pas quand soumettre leur demande, à cause d'un manque d'information, et ainsi de suite.

   Leurs difficultés proviennent également du fait que divers paliers du gouvernement se renvoient la balle quand il s'agit de prendre des décisions au sujet du budget, situation qui donne lieu à des incertitudes sur la disponibilité des fonds. Pour les inscriptions, tout peut dépendre finalement de l'assurance qu'on a d'obtenir suffisamment de fonds. La plupart de ces problèmes sont attribuables aux lacunes décelées dans le processus global d'administration du programme d'éducation postsecondaire.

Propositions

Les propositions formulées ci-dessous découlent de notre conviction que les difficultés éprouvées dans l'établissement des prévisions viennent des faiblesses de l'administration générale du programme. Par conséquent, la solution que nous proposons est d'ordre administratif et elle est axée sur l'ensemble du pays. Les objectifs visés sont les suivants:

1. Assurer l'uniformité et l'efficacité de l'administration du programme E-12, établir une méthode judicieuse d'administration de l'enseignement postsecondaire et rédiger un guide d'administration à l'appui. Ce guide devra renfermer les renseignements suivants:

   - descriptions précises de responsabilités et des tâches de toutes les personnnes qui oeuvrent au sein du programme et recoupement avec les descriptions de poste;
   - description de la marche à suivre dans l'échange de documents entre les principales section du système;
   - exposé précis de la politique et antécédents sur le plan de la prise de décisions;
   - échelonnement des principaux travaux et moment choisi pour leur réalisation;
   - marche à suivre et normes relatives aux travaux d'écritures et à leur qualité.

   Pour compléter la circulaire E-12, il y aurait leur de rédiger un document sur la marche à suivre exposant notamment les usages particuliers aux services extérieurs.

.../4

2. Une fois qu'il aura mis sur pied une méthode d'administration applicable à l'échelle nationale, le Ministère devrait formuler des directives précises sur la façon d'établir les prévisions. Il devrait ensuite faire en sorte que les prévisions budgétaires et la prévision du nombre d'inscriptions soient le plus exactes possible, c'est-à-dire que la marge d'erreur ne soit que de 5% en plus ou en moins.

3. Il voudrait mieux ne pas se servir du S.I.E.P. pour les étudiants du niveau postsecondaire avant qu'une méthode d'administration n'ait été conçue et qu'on soit certain que le S.I.E.P. sera compatible et offrira des liens avec cette dernière. Le système d'information doit être considéré comme un élément de <u>soutien</u> de la méthode d'administration, et non comme un moyen de la remplacer. Il est censé contenir des renseignements et des précisions sur différentes questions:

    - les données à recueillir,
    - la marche à suivre pour le traitement, la vérification, la sécurité et l'acheminement des données;
    - l'emploi des statistiques et l'établissement des rapports.

    Les propositions 1 et 3 sont exposées en détail aux pages 8 et 9 sous forme de normes de saine administration.

4. Accroître l'efficacité sur le plan de l'administration et, par le fait même, atténuer les problèmes des étudiants, et publier à leur intention une brochure explicative renfermant des conseils pratiques sur la façon de demander et de continuer de recevoir de l'aide. Les intéressés devraient prendre par à la rédaction de cette brochure.

5. Officialiser le régime d'appel décrit sommairement dans la circulaire E-12 en exposant les précédents dans ce domaine, et faire connaître les décisions s'y rapportant aux bureaux du Ministère. Il s'agirait là de la principale étape dans l'actualisation et la modification de la méthode d'administration.

6. L'application des propositions 1 et 3 devrait se faire en deux étapes distinctes, la première consistant à élaborer la méthode d'administration et à l'étayer sur des documents, et la seconde à l'intégrer au S.I.E.P.

<u>Il importe de souligner que ces propositions s'appliquent uniquement aux secteurs où l'éducation postsecondaire relève directement du Ministère et non des bandes qui gèrent elles-mêmes les sommes affectées à l'éducation</u>. On devrait cependant encourager ces dernières à respecter ou à adopter les normes de saine administration décrites dans le présent rapport.

Dans la dernière partie, on trouvera un plan d'application explicite des propositions formulées, ainsi qu'un aperçu des réalisations qui pourront en découler.

POST-SECONDARY EDUCATION DEMAND FORECASTING SYSTEM

INTRODUCTION

The study was designed to respond to essentially two issues. One is that raised in a Treasury Board report titled "An Evaluation of E-12: The Post Secondary Education Program for Indian Students". This report was an evaluation of E-12, the policy intended to define eligibility and funding for post-secondary education. The E-12 guideline gives a definition of eligibility that, in theory, should be fairly simple to administer. Anyone accepted for studies by a recognized post-secondary institution is eligible. While there are some qualifications to this rule, they are minor compared to the eligibility criteria found in typical student assistance programs. Even though the eligibility criterion is simple, the authors of the Treasury Board report found it impossible to develop trustworthy statistics that could be used to make even short term forecasts of post-secondary demand. Without reliable forecasts, it is difficult to evaluate annual budgets for post-secondary funds.

A major reason for the weakness of the forecasts appeared to be that there were large gaps in the statistics kept on post-secondary students. A second reason for the weakness of the forecasts appeared to be the potentially large number of mature students who might want to enter post-secondary studies some time after leaving high school. This brings us to the second issue of our study.

There is a growing demand for post-secondary education. Education is a critical factor in economic development. Native organizations experience real difficulties in finding trained individuals who can help to make enterprises successful. At the same time, more and more native people see education as a means of self fulfillment.

Both economic needs and personal needs combine to create demand for education not only from young people who want to continue their education, but also from older people who find they need to return to it.

It is not unreasonable to believe that the unique factors that influence native students' education demands could lead to large variations in both the size and accuracy of forecasts. On the other hand, the gaps in data collection have made it impossible to judge whether or not past unreliability has been caused by inconsistent record keeping or genuine fluctuations in student demand.

METHODOLOGICAL APPROACH

The essentials of our methodological approach were to find out how student forecasts are developed and how this information is used in the annual budgeting process, and to explore ways in which the process could be improved to yield more reliable results. To do this we interviewed Indian and Inuit Affairs officials, executives and members of native organizations, and native students, in several areas of the country. The goal was to select Regions with different administrative experiences. In each Indian Affairs Regional Office we visited, we endeavored to interview the Indian Affairs Education Director, or a representative, and all other Education staff who could contribute information. For each Region we also interviewed provincial Indian Association officals who have Education responsibilities. Similarily, we interviewed students, either as representatives of student organizations, or as individuals where no formal student organization existed. In addition to persons with formal roles in the education system, we also interviewed people who had relevant past or related experience as they came to our attention during the study. All these individuals represented national, regional, district, and band responsibilities. The interviews were conducted in February, March and April 1979.

In all we met with over 60 individuals across 7 different regions. To identify persons to interview we began with a list of key contacts in each region. These contacts were then used to generate other individuals who could contribute to the study. For a breakdown of these respondents by organizational level or job function, please see Appendix A.

From a preliminary review of operations in one region, we developed a general questionnaire to be used for the rest of the interviews. Because of differences in practices from region to region, we usually used the questionnaire as a check list. However, we found the questionnaire to be comprehensive. A copy of it is shown in Appendix B.

In addition to the interview program, we reviewed all the relevant documentation that we could obtain. This material included forms, memoranda, manuals, and reports. We also sought specific types of documents that we would expect to find in connection with a forecasting system.

FINDINGS

We will describe the findings in two sections:

1. Overview of Post-secondary Education
   - the operation of E-12
   - existing systems for projecting and budgeting
   - comparison of post-secondary administration with common administrative practice.

2. Interview Results
   - identification of new post-secondary students
   - identification of current post-secondary students
   - application for funding process
   - projection process
   - students' difficulties with E-12.

The overview section gives an idealized description of how post-secondary education is administered. The interview results describe what happens in practice. Where particular findings generate obvious recommendations we will point them out.

1. OVERVIEW OF POST-SECONDARY EDUCATION

This section briefly describes the administration and budgeting practices of post-secondary education as we found them. The description concentrates on the features that we found to be most important in interpreting the interview findings.

The description is also rather idealized because there are in fact great variations in post-secondary administrative practice from place to place.

1.1 The Operation of E-12

E-12 is a program circular that describes the Department's policy and guidelines for administering assistance to post-secondary students.

Its major features are:

- Eligibility consists primarily of being accepted for registration at a recognized post-secondary institution.

- While E-12 implies that students should use other educational assistance when available, it provides assistance covering virtually all of a student's costs while attending a post-secondary institution.

- The assistance extends for a period sufficient for a student carrying normal course loads to continue studies through to the Ph.D. degree. In fact, in most cases a student could either miss a year, or change programs, and still have enough coverage left to complete a degree.

- There are provisions for counselling services both in the student's home locale, and at the institution he or she attends.

The so-called "Sending Counsellors" and "Receiving Counsellors" are assigned duties generally related to helping students cope with administrative problems. Significant for this study, none of these duties include identifying potential students.

In addition to the E-12 circular, there are three official administrative forms: the student's application form, a form indicating termination of a student's studies, and a form called the Monthly Statistical Report. The Monthly Statistical Report summarizes a District's post-secondary enrollments according to type of program. It also includes year-to-date accumulations.

A student applies annually for assistance by filling out the application form and supplying supporting documents such as a letter of acceptance from a post-secondary institution. The District Office official, or a Regional Office official--depending on local conditions. It is not clear whether the number of different possible officials involved in this process is due to variations in administrative structure, or simple lack of directives for administering post-secondary education.

If the application is approved, the assistance allowances are calculated, and the necessary funds are transferred, usually to the Receiving Counsellor who will be responsible for issuing payments. Copies of the application form are supposed to go to the student, the Sending Counsellor, District Office, and Regional Office. When a student leaves a program, the Receiving Counsellor completes the termination form and sends it to the Sending Counsellor. The application and termination forms may be used by the District Office as a basis for completing the Monthly Statistical Report.

1.2 System for Projecting Enrollments and Budgeting

Strictly speaking, there is no national system for projecting post-secondary enrollments. That is, we could not find any reference to it in the E-12 circular; nor could we find a Department procedural document laying out the steps that should be followed. Therefore what we will describe as the process amounts to a description of what, ideally, officials try to do.

In August or September, Sending Counsellors try to make a list of names of students who will attend school next year. Along with each name they list the student's intended program. The program is used to estimate the student's costs. The costing may be done by a Sending Counsellor, or by someone else in the District who has more costing information and experience. Two thirds or more of the students will already be attending post-secondary institutions. The remainder will be new entrants, some graduating from high school, others being mature students.

This information is summarized to yield a Band or a District post-secondary budget estimate. The District estimates are combined at the Region Office to give a Region estimate, which in turn goes to Headquarters. Between October and March the entire budget process goes through several cycles which amount to a series of negotiations.

These negotiations boil down to attempting to bring two opposing pressures into equilibrium. One pressure is the demand by program operators to get the funds they need. The opposing pressure is the limit on the total amount of funds available to the Department. In this context program operators must to some degree compete with one another for funds, and they must act as advocates from District to Region, or Region to Headquarters, to convince the next level up of their need for funds.

Whether a program is discretionary or non-discretionary (to use the Department's terms) is an important factor in the budget process. A non-discretionary program has more or less guaranteed funding. Elementary and secondary education is non-discretionary. Post-secondary education was a discretionary program until April of this year (during this study), when it was declared a non-discretionary program.

Most significant for this study, discretionary programs are more vulnerable to competition from other programs than non-discretionary programs are. That is, in the past E-12 budgets have been vulnerable to competition from other programs.

1.3 The Administration of E-12 Compared with Standards of Administrative Practice

The administrative description we have just given contains a number of features that should cause concern, even without looking at the interview results. In the next few paragraphs we are going to point out these features by comparing E-12's administration with the administration of similar systems existing in both the public and private sector.

In the public sector, similar systems exist in the form of a variety of public assistance programs. In the private sector a manufacturer's management of a single product line is quite parallel with the administration of an assistance program--particularly in the problem of projecting demand and determining budgets.

In a smoothly operating system one expects to find the following:

1. An administration manual whose contents include:
   - an explicit description of the responsibilities and duties of all persons connected with the program - including cross-references to job descriptions
   - descriptions of paper flow for key sub-systems
   - clear statements of policy and decision-making precedents
   - timing and scheduling of key operations

- procedures and standards for record keeping

- procedures and standards for quality assurance.

2. A documented information system defining:
   - data to be collected

   - data processing and checking routines

   - routing of data

   - reports to be generated

   - routing of reports

   - how reports are to be used; and what actions are to be taken on their contents.

While the E-12 circular and various associated documents cover some of the areas we have just listed--there is no unified manual to be used as a day-to-day reference for operating personnel. Without such a reference in a national organization, personnel are left to their own devices. The interview findings in the next section confirm this truth.

2. INTERVIEW RESULTS

The interview findings will be summarized in the order followed in the interview questionnaire (see Appendix B). We will concentrate first on findings related to forecasting and budgeting. Then we will add incidental findings related to overall post-secondary administration.

2.1 Identification of New Post-Secondary Students

What we describe here will be symptomatic of almost all of our findings. That is, there is wide variation in practice from District to District, and Region to Region. The following three examples cover the range of practices used to identify new post-secondary students.

1. No attempt to individually identify new students, except perhaps to keep a mental list.

2. Keep a list of students' names along with their program plans. Students are not listed more than a year in advance. In some cases, students are listed only if they approach a counsellor. In other cases, the counsellor actively seeks out students who might be eligible.

3. The counsellor tries to start a file as early as possible, during the student's high school program, and keeps in touch with the student throughout high school. For mature students, the counsellor tries to keep in touch with the community, and be alert to mature students' who may decide to return to school.

Counsellors who actively identify new students use the following sources:

- on-going contact with students in the course of regular counselling activities;

- Band lists, Nominal Roll, school graduation lists;

- visits with families and general participation in Band life;

- formal surveys of Band members to identify mature students.

Contacts with new students vary from once or twice a year to once a month. Contacts are more frequent for high school students than for mature students. They are also more frequent if the counsellor is located near the students.

The information counsellors keep on potential students varies from little or none, to fairly extensive files. The more active a counsellor is, the more extensive the file. An active counsellor would keep most of the following:

- name, address, age, school, grade, marital and dependent status;

- school grades, courses;

- vocational plans, career counselling notes, interests, hobbies, etc.

- health, family, and financial information related to student's education plans.

Files of this sort are usually started at first contact with the student, and usually contain a log of each contact. We did not find any instance where the counsellor did not keep files in his or her personal possession. Nor did we find any students who objected in principle to the nature of the information being kept. On the other hand, we would have to observe that the security of this information tends to be rather loose, and it should be tightened up.

Counsellors usually have more detailed information for high school students. Although some counsellors have good knowledge about potential mature students, the information is harder to get because these students are not so accessible. We did not find anyone who had a good formula for identifying off-reserve students who have been out of touch with their home reserve. While this is a real problem in some districts, few counsellors found that there were so many off-reserve students that they were a significant problem.

Finally, counsellors who appear to have a good handle on the problem of identifying new students, felt that the task is relatively easy to perform, and in fact, is simply a natural outcome of doing a good job in the wider context of effective counselling. Most significant for this report, all of the counsellors who fell into this category, also stated that they had no difficulty in accurately projecting enrollments.

Identification of New Students: Summary and Recommendation

There are locations that do manage to identify new students well before it is necessary to include them in projections. Why some locations do, while others do not, appears to us to be a function of the counsellor's perception of his or her counselling responsibilities. Clearly, the activities and record keeping habits we found for successful counsellors should be made standard practice for all counsellors.

2.2 Identification of Current Students

With some exceptions, virtually all Sending Counsellors have little contact with students while they are away at school. What contacts there are, are usually about payment problems. However, sending Counsellors who have good initial student files, generally try to keep track of how the students are doing at school. We note too, that students tend to have little contact with Receiving Counsellors except to pick up their cheques.

There are at least two exceptions to this pattern that are worth mentioning. The Indian administered Lesser Slave Lake Indian Regional Council does not use Receiving Counsellors. Instead, the Sending Counsellor regularly visits the students at their institutions. The North West Territories, which administers both native and non-native students from a single office in Edmonton, also does not use Receiving Counsellors. They too regularly visit the students while they are away at school We might add that in both of those cases counsellors keep more detailed information on the students' academic progress, and there is stricter control over the students' use of funds.

Identification of Current Students:
Summary and Recommendation

There is little difficulty in keeping track of students once they get into the system. However, there are really no mechanisms for ensuring that the student remains in good standing throughout the academic year, and by the same token, no good way of detecting drop-outs. Unlike other student assistance programs, students are not required to get a signed statement at the end of each term indicating whether or not the student is in good standing.

E-12 should include mechanisms so that sending Districts or Bands can keep better track of students while they are at school. This might include doing away with using Receiving Counsellors to administer funds and administering funds from the sending authority. Receiving Counsellors would be kept only where they serve a genuine counselling need.

2.3 Application Process

Administratively, the application process generally operates smoothly. However, some Districts have redesigned the application form. At the time of this writing, the form was being revised to accommodate computer processing.

There are some correctable problems in the timing of applications. A significant number of students apply late - or even arrive to register at an institution, expecting to apply there. This indicates that a number of students are not being informed. Knowledgeable students apply early - especially if there is doubt about the supply of funds.

We are unable to suggest how many students are refused assistance, because there is no control to ensure that a student's application is accepted and processed. Reasons given for turning down a student included:

1. No funds available.

2. Failure to meet eligibility criteria.

3. Failure to rank high enough on a Band's priority list where there are not enough funds for all the eligible candidates.

Generally, students are asked to complete an application, even when funds are low.

2.4 The Projection Process

The following gives the formula a Region typically uses for projecting new years' enrollment and budget:

1. At District level, take the number of students currently enrolled and subtract out the ones who will graduate.

2. Add in the numbers of high school graduates who have been identified as potential post-secondary

students, or add a percentage number from the high school graduation class based on past statistics.

3. Add the names of known potential mature students, or as in 2, add a percentage number based on past experience.

As one might expect, the accuracy of this process is proportional to the degree to which past statistics are reliable and where actual individuals are identified as potential students. Along with getting projected enrollment figures, the District has to calculate estimated costs. This is fairly straight forward if one knows each student's intended program, and one has enough past experience with the program to know what it will cost. Unusual programs, part-time programs, or unexpected inflationary price jumps can throw off this accuracy. When the students' names and programs cannot be identified, the cost estimates become unreliable.

We found several locations where students are listed by name and program, handling anywhere from 30 to several hundred students, who consistently have estimates that turn out to be within 5% of actual costs. These locations included both Indian and Department administered budgets. All expressed the opinion that 5% accuracy is a realistic target for the budget projection.

Data from the Monthly Statistical Reports have little use in the projection process. In fact, the Monthly Statistical Report does not seem to be used for much of anything. We know of one major location that has never completed one, and has never been asked for one. Districts that do fill it out, typically do it incorrectly. And, not only do they do it incorrectly, they are typically inconsistent in their errors. Finally, the Reports are seldom done on time.

In saying this, we do not in the least criticize the people responsible for completing these Reports. The form is poorly designed. It tries to accomplish in one grand form, what should be accomplished in three or four stages. As well, there are no user instructions on how to prepare input for the form, how to fill it out, and how to verify accuracy. At the Regional level, there is also no standard procedure for dealing with the reports. Of if there once was, it has long been abandoned in the face of the inaccuracies of District input. As a result of the unreliability of the Monthly Statistical Report, Regions, and often different Districts, have developed an array of bootleg statistical systems.

CEIS has been designed to fill the gap left by the weaknesses of the Monthly Statistical Reports. However, its draft documentation does not say how its reports are to be used in the projection process. Directions on the use of reports, or information contained in reports, is of course the function of an administration manual. But since there is no administration manual, we can only speculate on whether or not CEIS will make much difference to projections, or to the administration of E-12 as a whole. Finally, as CEIS was not intended to cover potential students the problem of getting these individuals into projections remains as before.

At the outset of this investigation, we were trying to trace apparent inaccuracies in the actual projections, on the assumption that correcting the statistics would correct the budgeting problems. It soon became evident that in many locations there was, in effect, a fixed budget for post-secondary education that limits the number of students who could get assistance. In other locations, the post-secondary budget oscillates up and down so much that we do not see how anyone could manage the assistance program. Here is an example from a District. In early October it submitted a budget of $500,000. The first budget cycle response from the Region was that it would get $400,000. A month or so later, this went down to $220,000. Then just before April 1st, Region told the District that it would get $490,000, just under the amount originally requested. The District actually got no funds till September.

The example we just gave is rather extreme. But it does reflect what has been happening at Region and Headquarters levels during the budget negotiating cycles. Because of its previous discretionary status - the post-secondary budget had been very much at the mercy of competition from other discretionary programs.

The Projection Process: Summary and Conclusion

Locations where counsellors keep good track of potential and current post-secondary students, and education administrators use this information to develop a budget based on actual names and programs, have little difficulty in producing a budget estimate accurate to plus or minus 5%. The Department should aim to make this standard practice in all Regions.

While CEIS is designed to fill the existing gaps in statistical reporting, it does not contain explicit directions on how statistics are to be used in projections. The Department should not assume that CEIS will automatically solve the projection problem. It should develop specific directives on how projections are to be done, including how CEIS statistics are to be used, and how potential students are to be accounted for.

The discretionary status of the post-secondary budget has had a great impact on the projection process. When budgets fluctuate in an apparently arbitrary manner, it plays havoc at the level of individual counsellors trying to advise students. The recent directive making post-secondary education a non-discretionary budget should do a great deal to alleviate this problem. However, it will not solve the problem for Districts whose information base on students is weak to start with. Therefore, the Department should take steps like the ones already recommended to ensure that administrative procedures reflect the intent of E-12's new status.

2.5 Student Difficulties Related to Projections

Students reported difficulties that in many ways reflect what might be expected results of the administration system we have described in earlier sections. Because of the nature of our study, we could not say how prevalent each of the following problems is across the country.

1. Variations in the adequacy of budget allocations from Region to Region, and District to District ultimately produce inequities in individual students' allowances. Thus a student from one District can find him or herself on a very tight allowance, while an apparently similar student from another District is on a comfortable allowance. This can happen even when a District predicts enrollment numbers accurately.

2. Lack of consistent administration and lack of reliable projections, leads to various difficulties in getting applications processed and approved. This can happen both when money is available and these students are not told, and when funds are depleted. Moreover, other students have not been funded even though they were eligible according to E-12.

Undocumented decision making precedents and the lack of standards have resulted in cases of apparent arbitrariness in administration, by both Department and Band officials. A number of students feel they are at the mercy of local politics. Several believe that

E-12 should be administered as a centralized national program to get away from local inequities.

Student Difficulties with E-12:
Summary and Recommendation

Students are victims of a number of administrative problems including failure to get funds, awkward or inadequate funding, and being cut off from funds. There appear to be two sources of these problems. One is the general lack of proper administrative system for E-12. The other is the lack of practical information to students on how to apply, when to apply, and generally on how to deal with the system.

Recommendations already made should produce substantial reductions in students' problems. However, in addition there should also be a student information brochure to assist students in making sure they apply in time and so on. There should also be an appeals system reporting to Headquarters. This would not only assure fairness, but also serve as a way of surfacing general administrative problems.

RECOMMENDATIONS

In presenting our findings we have place emphasis on reporting positive instances of effective administration of the post-secondary program. Some of the people we interviewed would find this emphasis distasteful. In fact, it would be possible to be highly critical of the present administration practices. However, the facts are that everyone admits there are serious problems in the post-secondary projections. There are instances that show that accurate projections are possible, and they show what needs to be done to achieve not only more accurate projections but also general improvements in post-secondary administration. Thus, the recommendations that follow amount to standardizing across the Department, the examples we found of good practices, along with good principles of administrative practice outline in the first part of the findings.

Our recommendations reflect the view that problems in projection process are outcomes of post-secondary education's administrative weaknesses. Consequently, our solution is an administrative solution. It includes:

1. To achieve consistent and efficient administration of E-12, design a proper post-secondary education administration system, and document it in an administration manual.

2. Formulate specific directives on how projections are to be made, including standards for accuracy. The Department should aim for estimates accurate to plus or minus 5%.

3. Do not implement CEIS for post-secondary students until an administrative system has been designed and it is clear that CEIS will be consistent with, and relevant to, the administrative system.

Recommendations 1 and 3 are given in more detail on pages 8 and 9, in the form of standards of good administrative practice.

4. To improved administrative effectiveness and thereby reduce student problems, produce a student information brochure giving practical directions on applying for and maintaining assistance. Post-secondary students should participate in its development.

5. Formalize an appeal system including a means for setting precedents and promulgating decisions to Departmental offices. This would be the primary mechanism for updating and modifying the administrative system.

6. Implementation of recommendations 1 and 3 should be done as two separate tasks, the first consisting of designing and documenting the administrative system, and the second, integrating it with CEIS.

The last section of the report describes a specific plan for implementing these recommendations, and a review of what would be achieved.

Implementation

The administrative system could be developed by producing a procedural document that incorporates specific practices found in our field work to support the E-12 circular. Detailed reviews of the Lesser Slave Lake, the Dakota-Ojibway Council and the administrative N.W.T. systems could provide much of this input. (Our comments here on these locations refer to their administration systems and not to administration policies.) There also needs to be a review of counsellors' job descriptions and what impact the post-secondary administrative system would have on other Department systems. There also needs to be some thought given to organization. We are quite certain that students are alone in wanting a centralized administration, even if one could show that it would work. However, there should be Headquarters responsibility with enough authority to ensure fairness and standards of quality, across Regions.

Once an administrative system design is underway, work could start on integrating CEIS. We believe strongly that an information system should not be used as a substitute for an administration system, nor should an administration system be tailored to fit an existing information sytem. Instead, design the E-12 administration system and then see if CEIS meets its needs. If not, modify CEIS to meet these needs.

Introducing a proper administration system could yield the following benefits:

1. Improved counselling activities. Clearly defined job descriptions and responsibilities would assist counsellors to carry out their roles.

2. Decreased student drop-out at both the secondary and post secondary levels because of the improved counselling activity.

3. More accurate projections and budget estimates. These would be immediately available for short term planning. As the data base builds up, they would become part of long term planning.

. A significant general improvement in administrative effectiveness from everyone's point of view:

   - students
   - the native community
   - administrators
   - constituents, in the form of the Treasury Board, the Auditor General, and the Comptroller General.

APPENDIX A

RESPONDENTS

RESPONDENTS BY JOB FUNCTION

16 Directors of Education and Superintendents of Continuing Education in Regional Offices.

2 District Office Superintendents of Education.

24 Counsellors.

15 Other Education Officials.

3 Members of Indian Associations.

8 Students and Members of Student Organizations.

APPENDIX B

INTERVIEW QUESTIONNAIRE

STUDY OF PROJECTIONS FOR
POST SECONDARY SCHOOL FUNDING

RESPONDENT'S NAME: ____________________ PHONE NO. __________

ADDRESS: ____________________

POSITION: ____________________

INTERVIEWED BY: ____________________ DATE: __________

SENDING COUNSELLOR

NEW STUDENTS

As a sending counsellor, do you identify potential post-secondary students? How?

Do you make a list of their names?

What contacts do you have with them? How often?

Do you keep any information about them? What information do you keep? (Probe: school grades, vocational plans, other responsibilities or plans, etc.)

Is this information on file?

Do you identify potential students from off the Reserve? (Probe: use of Band membership lists) How?

Do you keep any information about them? What information?

CURRENT POST-SECONDARY STUDENTS

Do you keep track of post-secondary students while they're away at school?

What contacts do you have with them? When and how often?

Do you have contact with receiving counsellors? What is it?

Do you keep any information about these students? What information? (Probe: school grades, vocational plans, other responsibilities or plans, etc).

Is this information kept on file?

PROJECTION PROCESS

When you prepare the list of students expected to require funds next year, how do you decide who goes on the list? Start with how you find out each student's plans for next year. (Answer to be done so that it could be flow charted. Probes Include:

- any forms used
- who participates in the process, e.g. Band Administrator, etc.
- timing of all steps
- information used in the process
- criteria used in decisions).

Are students notified about whether or not they were put on the list?

How accurate is the projection from year to year? (If not accurate, Probe includes)

- number of dropouts
- new candidates
- possible failures in keeping track of students
- inconsistent information about students).

Do you have any contact with District or Region after the list is submitted?

How do you estimate students' costs? (Details on individual costing)

If the forecasting/projection system could be changed, what changes would you make to improve it? Why?

APPLICATION FOR FUNDS

How do students apply for funds? Could you describe the application/approval/funding process used by your Band. (Answer to be done so that it could be flowcharted, Probes include:

- forms used
- who participates
- timing
- information used
- decision criteria).

Are there any difficulties in completing the application for assistance (Form 352)? What are they?

How often are students turned down? For what reasons?

What happens to the application forms that are rejected?

If funds are used up are students still asked to complete applications?

How often do students who were in the projections, fail to apply? For what reasons?

How many mature or off-Reserve students apply for assistance each year? Approximately what percentage would these students be of the total number applying for funds?

RECEIVING COUNSELLOR

As a Receiving Counsellor, how do you keep track of students in post-secondary programs?

What contacts do you have with them? How often?

Do you have any contact with the sending counsellors? What is it?

Do you keep any information about the students? What information?

Do you attempt to help sending counsellors in projecting next year's student costs, etc?

What difficulties have your students had in obtaining funds?

DISTRICT OFFICE

Could you describe the process your office goes through when a student from a Band with no funding program applies for assistance? (Probe includes:

- timing
- approval process
- criteria for approval or rejection
- who is involved).

For what reasons would a student be turned down?

How many students applied for assistance through this office last year?

Are there any problems in completing the 352's? What are they?

Are there any problems in completing the monthly statistical reports? What are they?

What information do you use to predict next year's enrollment for this District?

How accurate is you prediction from year-to-year?

Are applications from students accepted after all the funds have been committed?

If the forecasting system could be changed, what changes would you make to improve it? Why?

REGIONAL OFFICE

What information do you use to predict enrollment for post-secondary education?

What method do you use to predict enrollment? Drop-out rate?

Could you show me how you would predict figures for next year's enrollment?

How do you take into account non-resident-Reserve students and mature students when making enrollment predictions?

What were your <u>forecasted</u> enrollment figures for this school year?

What were your <u>actual</u> enrollment figures for this school year?

Can you give me forecasted and predicted figures for the last 2 years?

Are there any problems in the methods now being used to predict enrollment? What are they?

Do you provide any feedback to D.O.'s and/or Bands about their predictions each year? What do you tell them?

If the forecasting system could be changed, what changes would you make to improve it? Why?

Could you give me some copies of the monthly statistical reports from one or two of your District Offices?