



ARCHIVED - Archiving Content

Archived Content

Information identified as archived is provided for reference, research or recordkeeping purposes. It is not subject to the Government of Canada Web Standards and has not been altered or updated since it was archived. Please contact us to request a format other than those available.

ARCHIVÉE - Contenu archivé

Contenu archivé

L'information dont il est indiqué qu'elle est archivée est fournie à des fins de référence, de recherche ou de tenue de documents. Elle n'est pas assujettie aux normes Web du gouvernement du Canada et elle n'a pas été modifiée ou mise à jour depuis son archivage. Pour obtenir cette information dans un autre format, veuillez communiquer avec nous.

This document is archival in nature and is intended for those who wish to consult archival documents made available from the collection of Public Safety Canada.

Some of these documents are available in only one official language. Translation, to be provided by Public Safety Canada, is available upon request.

Le présent document a une valeur archivistique et fait partie des documents d'archives rendus disponibles par Sécurité publique Canada à ceux qui souhaitent consulter ces documents issus de sa collection.

Certains de ces documents ne sont disponibles que dans une langue officielle. Sécurité publique Canada fournira une traduction sur demande.

FINANCIAL AND MAN-YEAR ANALYSIS
OF A
NATIONAL STAFF COLLEGE(S)
FOR THE
CORRECTIONAL SERVICE OF CANADA

March 1979

HV
9308
F52
1979



SEM-ENG CONSULTANTS, LTD.



SEM-ENG CONSULTANTS, LTD.

101 Lyon Street N., Ottawa, Canada K1R 5T9 Tel. (613) 238-1319 Telex: 053-3570

HV
9308
F52
1979

March 30, 1979

Mr. D.R. Yeomans,
Commissioner of Corrections,
Correctional Service of Canada,
Solicitor General of Canada,
Ottawa, Ontario

Dear Mr. Yeomans:

We are pleased to submit our final report entitled "Financial and Man-Year Analysis of a National Staff College(s) for the Correctional Service of Canada".

A detailed financial, man-year and timing analysis for each of the three alternatives is presented in this report.

We have enjoyed working on this project and would like to express our thanks and appreciation to your staff and all officials concerned for the co-operation extended to us in conducting this study.

On behalf of our consultants,

Yours sincerely,

V. Paul Rossiter, P. Eng., M.B.A.
Executive Director,
SEM-ENG CONSULTANTS LTD.

Copyright of this document does not belong to the Crown.
Proper authorization must be obtained from the author for
any intended use.
Les droits d'auteur du présent document n'appartiennent
pas à l'État. Toute utilisation du contenu du présent
document doit être approuvée préalablement par l'auteur.

EXECUTIVE SUMMARY

The objective of this study is to provide a detailed analysis of the financial, man-year and timing implications of the following alternatives:

Alternatives

- 1 : *Establish one National Correctional Staff College to serve all Correctional Service of Canada training needs;*
- 2 : *Establish two National Correctional Staff Colleges; one to serve all induction training needs and one to serve all refresher and other training needs;*
- 3 : *Establish two National Correctional Staff Colleges; one to serve all French language training needs and the other to serve all English language training needs.*

The findings of this study are:

	Alternative 1	Alternative 2	Alternative 3	Present 5 College System
UNIT COST	\$61.98	\$75.42	\$79.00	\$102.08
MAN-YEARS	60	80	91	117

Based on the analysis of the findings the following conclusions are reached:

- ◆ *Each of the three national college alternative(s) offers the Correctional Service of Canada financial and man-year savings over maintenance of a regional college operation.*

- ◆ *The establishment of one national staff college to handle all Correctional Service of Canada training needs (alternative 1) offers savings of 57 man-years and \$1,722,434 in annual operating and maintenance costs.*
- ◆ *The establishment of one national induction training college and a separate national refresher and other training college (alternative 2) offers savings of 37 man-years and \$1,145,094 in annual operating and maintenance costs.*
- ◆ *The establishment of one national college to handle French training and a separate college to handle English training (alternative 3) offers savings of 26 man-years and \$991,304 in annual operating and maintenance costs.*
- ◆ *A decision to contract out "hotel services" will result in additional man-year savings of approximately 30% for each of the three national college(s) alternatives.*
- ◆ *The specific location(s) selected for establishment of a national college(s) will not affect the financial and man-year considerations, with the exception of travel costs.*
- ◆ *The establishment of a National Correctional Service of Canada staff college(s) regardless of the specific alternative selected will require a minimum of three years before the facility will be ready for full occupancy.*

GLOSSARY OF TERMS

CAPITAL COSTS

- Building Costs - *total estimated cost of construction, architectural fees and fixed equipment (1979 dollars) for a new college facility.*
- Renovation or Alteration Costs - *total estimated cost of construction, architectural fees and fixed equipment (1979 dollars) to ready an existing structure to meet detailed needs.*
- Other Costs - *cost of replacement of equipment, machinery or vehicles for 5 existing staff colleges (based on 1979-1980 main estimates).*
- Relocation Cost - *cost of relocating 70% of projected minimum man-year requirement at average cost of \$13,100 per relocating employee.*

OPERATING AND MAINTENANCE COSTS

- Site-Related Costs - *estimate of all operating and maintenance costs which pertain solely to the site and building.*
- Operations-Related Costs - *estimate of all operating and maintenance costs which pertain to the administrative and training needs, regardless of location.*

OPERATING AND
MAINTENANCE COSTS (cont'd.)

- Salaries Cost - *basic annual salary and provision for salary revision for minimum and maximum projected man-year requirements (based on 1979-1980 main estimates).*

- Travel Cost - *cost of economy air transportation from region of originator to prospective national staff college site(s) (based on 1980-1981 projected number of trainees and Treasury Board travel directive).*

- UNIT COST - *cost of operating a staff college(s) per trainee per training day (based on total projected operating and maintenance costs and projected college utilization in training days).*

- CX-COF - *terminology for Custodial Classification Correctional Officer.*

- CX-LUF - *terminology for Custodial Classification, Living Unit Officer.*

- NON-CX - *terminology for all other Correctional Service of Canada employees who are not classified custodial.*

TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	<i>i</i>
GLOSSARY OF TERMS	<i>iii</i>
INTRODUCTION	1
Background	2
Methodology	2
IDENTIFICATION OF NEEDS	5
Training	5
Facilities	11
Man-Years	16
Timing	20
EVALUATION OF ALTERNATIVES	22
ANALYSIS	31
CONCLUSIONS	36
APPENDICES:	
A : Identification of Training Needs - Step-by-Step Process	38
B : Projected College Capacity and Utilization Data	52
C : Identification of Facility Needs	54
D : Identification of Man-Year Needs	61
E : Relocation and Travel Costs	63
F : Detailed Financial Calculations	70

	<u>Page</u>
LIST OF EXHIBITS:	
A : Identification of Training Needs	10
B : Projected College Capacity and Utilization	12
C : Summary of Projected Facility Requirement	14
D : Sample Organization Chart - National Staff College - Alternative 1; Alternative 2 (Refresher and Other); Alternative 3 (French) and (English)	17
E : Sample Organization Chart - National Staff College - Alternative 2 - Induction	18
F : Summary of Man-Year Requirements	19
G : Financial and Man-Year Considerations - Alternative 1	27
H : Financial and Man-Year Considerations - Alternative 2	28
I : Financial and Man-Year Considerations - Alternative 3	29
J : Financial and Man-Year Considerations - Current Regional Staff College Operation	30
K : Comparison of Financial and Man-Year Considerations	32

INTRODUCTION

INTRODUCTION

Sem-Eng Consultants Ltd. was engaged by the Correctional Service of Canada to provide a detailed analysis of the financial, man-year and timing implications of each of the following alternatives:

1. *Establish one National Correctional Staff College to serve all Correctional Service of Canada training needs;*
2. *Establish two National Correctional Staff Colleges; one to serve all induction training needs and one to serve all refresher and other training needs;*
3. *Establish two National Correctional Staff Colleges; one to serve all French language training needs and the other to serve all English language training needs.*

Training, facility and man-year requirements were identified for each alternative and evaluation was done by comparison of these requirements and the related financial considerations: capital costs, relocation cost, operating and maintenance costs, salaries cost, travel cost and unit cost. Each alternative was compared to the other two alternatives and to the current five regional staff college operation.

Three prospective sites for the location of a national staff college(s) were identified, namely Kingston, Montreal and Ottawa, and were used, where applicable, in the determination of costs for each alternative.

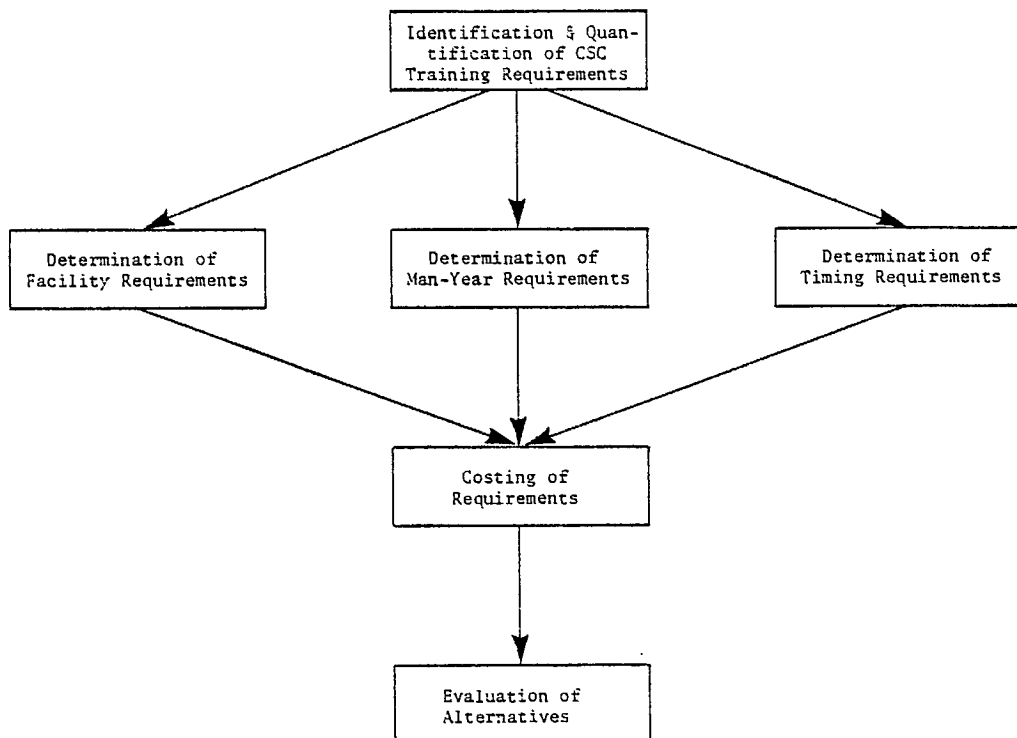
BACKGROUND

The Correctional Service of Canada currently operates five staff colleges, one located in each region. A previous study, investigating amalgamation of the Prairie and Pacific Staff Colleges, indicated that economies of scale and resultant financial and man-years savings could be attained if this amalgamation was effected. These findings led to the assumption that additional economies of scale and savings might be possible if amalgamation of staff colleges was done on a larger scale by establishing a national staff college(s).

The emphasis of this study, therefore, was to determine the validity of this assumption by identifying and quantifying the effect of the establishment of a national staff college(s) on financial and man-year requirements.

METHODOLOGY

The methodology used in this study is illustrated below:



Identification and Quantification
of CSC Training Requirements

The Correctional Service of Canada training programs are currently being revised and will be subject to considerable change. It was, therefore, not realistic to use the existing data available on training programs in the determination of training, facility and man-year needs for a national staff college(s) to be established in the future.

In developing the new data base of training requirements numerous discussions were held with Correctional Service of Canada personnel from the regional staff colleges and from the Staff Training and Staff Relations Divisions at National Headquarters. Through further discussions with the Policy and Planning Division and the Manpower Planning Division a step-by-step process was developed to assist in the quantification of these training requirements.

Determination of Facility, Man-
Year, and Timing Requirements

Using the resultant data on training requirements as a base it was possible to project the facility, man-year and timing requirements for each of the three alternatives under consideration. Through consultation with Facilities Planning personnel within the Correctional Service of Canada at both the regional and national levels, and with personnel from other federal government departments, such as the Department of Public Works, Department of Transport and Customs and Excise, who have recently been involved in the planning and construction of similar training college facilities, it was possible to ensure that the projected facility requirements and timing estimates were both realistic and justifiable.

Based on the projected training load, man-year requirements were determined by type of positions so that optional use of contract personnel could be readily identified.

Costing of Requirements

A number of methods were used in the determination of costs for each of the requirements. All capital costs associated with construction of facilities were estimated by a private contracting construction company and approved in principle by the Correctional Service of Canada Facilities Planning Division. Where possible, the 1979-80 main estimates for the current regional staff colleges were used as an information source and were adjusted as necessary for the costing of operating and maintenance items and man-year requirements.

Evaluation of Alternatives

Each of the three alternatives was then evaluated on the basis of the determined requirements and associated costs and compared not only to the other two alternatives, but also to the current regional staff college system.

**IDENTIFICATION
OF NEEDS**

IDENTIFICATION OF NEEDS

TRAINING

The five regional Correctional Service of Canada Staff Colleges are currently responsible for conducting induction and some refresher training for the CX-COF and CX-LUF employee classifications and for providing the facilities, but not necessarily the resources, for other types of specialized or professional training. An induction training program for non-CX classification employees is now in the developmental stage, but once completed it too will be conducted at the staff colleges.

In evaluating the concept of a National Correctional Staff College(s) it was necessary, as an initial step, to determine the projected need for training for the Correctional Service of Canada as a whole. The following step-by-step process was developed to quantify this need in training days for each of the aforementioned types of training for the period 1980-1981 through 1984-1985:

STEPS:

- 1 : Establish the *Canadian Penitentiary Service - Inmate Population Forecast 1980/81 through 1984/85* as base;
- 2 : Convert to a *Correctional Service of Canada Staff Establishment Forecast 1980/81 through 1984/85* by applying the approved .9 to 1 staff to inmate ratio and adding the approved National Parole Service man-years for 1980/81;
- 3 : Use the 1980/81 Operational Planning recommendations to calculate the *percentage allocation of man-years between CX-COF, CX-LUF and other classifications* and between National Headquarters and the 5 regions;

- 4 : Use the percentages established (step 3) and the CSC Staff Establishment Forecast (step 2) to calculate a *projected allocation of man-years for 1981/82 through 1984/85*;
- 5 : Calculate the *median of actual CSC turnover rates* for 1975/76 through 1977/78 to be used as the "most likely" turnover rates for CX-COF, CX-LUF and other classifications by region;
- 6 : Use a deviation of + 1% from the median to *establish maximum and minimum turnover rates*;
- 7 : Calculate the maximum, most likely and minimum *projected number of induction trainees*;
- 8 : Establish a set of *assumptions regarding course duration* in training days;
- 9 : Calculate the *projected number of candidates for refresher and other training*;
- 10 : Calculate the *projected national staff college utilization in training days* by applying applicable assumptions (step 8) to projected number of trainees (steps 7 & 9).

Step 1

The Operational Planning Division of the Policy and Planning Branch is using the Canadian Penitentiary Service - Inmate Population Forecast 1976/77 through 1984/85 as their planning data base. To ensure that the findings of this report are consistent with the policies being concurrently developed it was essential that the same data base be used. Accordingly, the data for the period 1980/81 through 1984/85 was used as a base for all subsequent calculations.

Step 2

The conversion process is likewise being used by the Operational Planning Division in their calculation of total

Correctional Service of Canada man-years for 1980-81 and has been approved by senior management. By making the assumption that the National Parole Service will be subject to a zero growth policy it was possible to use the same conversion procedure to project the total Correctional Service of Canada staff establishment through 1984-1985. It should be noted that all assumptions were discussed with, and approved in principle by, Operational Planning and Special Projects Management personnel prior to their inclusion in the step-by-step procedure.

Steps 3 and 4

There are two assumptions inherent in the use of the 1980/81 Operational Planning recommendations to calculate percentage allocation of man-years between National Headquarters and the five regions and between the CX-COF, CX-LUF and other employee classifications within each region. Firstly, it is assumed that there will be no substantial change in the profile of the Correctional Service of Canada over the next five years in terms of percentage allocation of man-years to security (CX) and non-security (non-CX) classifications. Secondly, it is assumed that National Headquarters, like the National Parole Service, will be subject to a zero growth policy. The 1980/81 approved National Headquarters staff complement has, therefore, been held constant at 493 man-years through 1984/85 and the remaining man-years have been distributed by region and by the three employee classifications within each region.

Steps 5 and 6

There are numerous factors which cannot be predicted or controlled, but which can have a dramatic effect on employee turnover rates in that they can fluctuate over a considerable

range over time. The median of the actual turnover rates between 1975/76 and 1977/78 was, therefore, used as the best statistical measure of the most likely turnover rates. However, maximum and minimum turnover rates were also established by assuming a deviation factor of $\pm 1\%$ from the median to compensate for the fluctuations which will undoubtedly occur.

Step 7

The projected number of induction trainees was calculated by applying the turnover rates to the breakdown of man-years for each year. Since the growth factor was already incorporated in the 1980/81 through 1984/85 man-year projections the anticipated growth in demand for induction training has been smoothed over the five year time span. The figures do not reflect the uneven growth pattern which will actually occur due to the increased demands involved in the opening of new institutions because the detailed schedule of the capital construction program has not yet been finalized.

Step 8

To enable conversion of the projected number of trainees into projected training load or college utilization in training days it was necessary to make some assumptions regarding course duration. The following assumptions were based on data provided by the Staff Training Division and were revised and approved by them. They are not meant to be definitive as the training courses concerned are only now in the developmental stages and the details regarding duration are, accordingly, subject to change.

1. The CX-COF induction course will involve 45 training days per trainee at a Correctional Service of Canada Staff College;

2. The CX-LUF induction course will involve 60 training days per trainee at a Correctional Service of Canada Staff College;
3. The non-CX induction course will involve 10 training days per trainee at a Correctional Service of Canada Staff College;
4. The CX-COF and CX-LUF refresher training course will involve 15 training days per trainee at a Correctional Service of Canada Staff College. Each CX-COF and CX-LUF employee will receive this training once every three years;
5. All Correctional Service of Canada employees, including those in the CX classification, will be entitled to receive other training. Courses will involve an average of 4 training days per trainee at a Correctional Service of Canada Staff College and 10% of all Correctional Service of Canada employees will attend other courses each year.

Step 9

The final two assumptions outlined in Step 8 regarding staff training directly influence the number of employees entitled to refresher and/or other training. Projected numbers of candidates for refresher and other training were calculated by applying these assumptions to the Correctional Service of Canada Staff Establishment Forecast.

Step 10

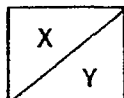
The staff training assumptions regarding course duration were applied to the projected numbers of trainees to identify the total Correctional Service of Canada training needs for each of the three alternatives.

The detailed calculations for each of the ten steps discussed appear in Appendix A, page 38.

IDENTIFICATION OF TRAINING NEEDS
(MOST LIKELY NUMBER OF TRAINEES AND TRAINING DAYS)

Exhibit A

	1980/81	1981/82	1982/83	1983/84	1984/85
ALTERNATIVE 1 (1 NATIONAL STAFF COLLEGE)	3,131	3,191	3,278	3,407	3,443
	42,951	43,847	45,001	46,822	47,235
ALTERNATIVE 2 (1 NATIONAL INDUCTION STAFF COLLEGE)	697	712	730	760	767
	17,415	17,840	18,265	19,000	19,140
(1 NATIONAL REFRESHER AND OTHER STAFF COLLEGE)	2,434	2,479	2,548	2,647	2,676
	25,536	26,009	26,736	27,822	28,095
ALTERNATIVE 3 (1 FRENCH STAFF COLLEGE)	961	978	1,006	1,046	1,057
	13,092	13,357	13,734	14,267	14,383
(1 ENGLISH STAFF COLLEGE)	2,170	2,213	2,272	2,361	2,386
	29,859	30,492	31,267	32,555	32,852



X = number of trainees
Y = number of training days

As the identification and quantification of training needs, both in terms of numbers of trainees and in terms of training days, is fundamental to the remaining phases of this study, a summary of the results for each alternative under consideration appears in Exhibit A on the opposite page.

FACILITIES

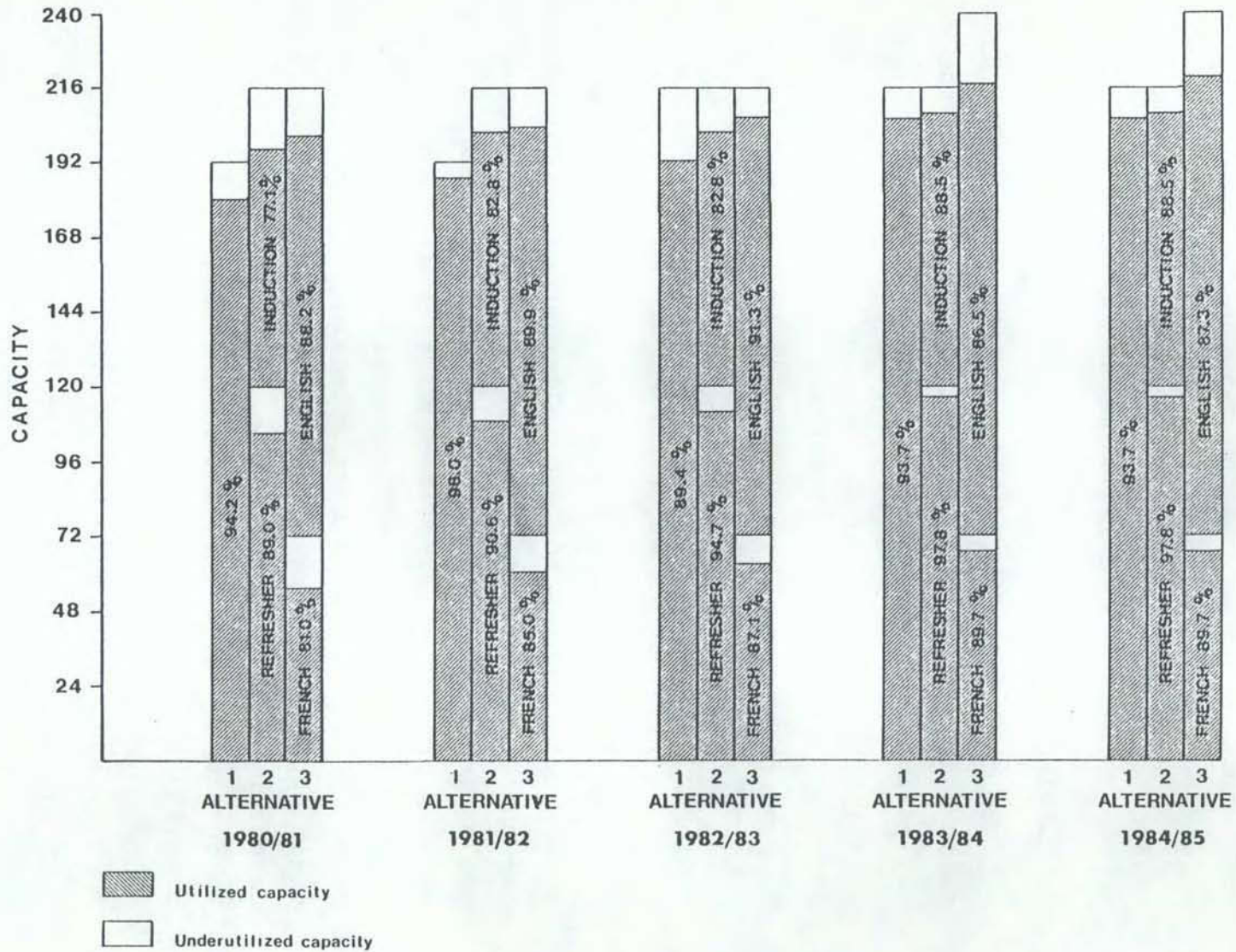
To facilitate translation of the projected training needs into a statement of facility requirements the following two assumptions were made:

1. That each course, regardless of type, would have an average enrollment of 24 students;
2. That there are 240 available training days in any given year (365 less 104 weekend days, 11 statutory holidays and 10 days due to scheduling difficulties between Christmas and New Year).

By applying the first assumption the projected college utilization figures for each alternative were converted to the number of courses to be offered. For instance, to handle the national demand for CX-COF induction training (272 trainees) with an assumed class size of 24 trainees it would be necessary to schedule 12 CX-COF induction courses. The resultant number of courses were then scheduled over the available 240 training days to determine the number of courses it would be necessary to run concurrently. By doing this it was possible to determine the required college capacity in terms of student population and the percentage utilization of that capacity.

Although the capacity requirements were determined for each alternative for the period 1980/81 through 1984/85, the 1984/85 requirements were selected as the basis for the determination of the detailed facility requirements as the facility or facilities should be adequate to meet the maximum future needs.

PROJECTED COLLEGE CAPACITY AND UTILIZATION
(MOST LIKELY)



The capacity requirements and percentage utilization figures, based on the most likely training load data, are depicted in Exhibit B which appears on the opposite page. As illustrated in this exhibit, if Alternative 1 was selected, it would be necessary to have one national staff college with capacity for 216 students. The 1984/85 training load indicates that such a college would be 93.7% utilized.

If Alternative 2 was selected, it would be necessary to have two National Staff Colleges with combined capacity for 216 students. The induction training college would require capacity for 96 students and would be 88.5% utilized, while the refresher and other training college would require capacity for 120 students and be 97.8% utilized.

There would also be a requirement for two separate national staff colleges if Alternative 3 was chosen, however, the combined capacity requirement would be for 240 students. The French training college would require capacity for 72 students and be 89.7% utilized while the English training college would require capacity for 168 students and be 87.3% utilized.

Complete details of capacity requirements and utilization for the maximum, most likely and minimum training loads appear in Appendix B, page 52.

Once the overall facility size or capacity requirements were determined for each alternative, it was necessary to detail the specific types of facilities which a national staff college(s) would contain and to determine the space allocation for each. Although an attempt was made to adhere to government

SUMMARY OF PROJECTED FACILITY REQUIREMENT
(Square Feet)

	ALTERNATIVES		
	1	2	3
INSTRUCTIONAL SPACE	20,400	31,800	32,400
INSTRUCTIONAL SUPPORT SPACE	6,950	8,900	9,100
ADMINISTRATIVE SPACE	4,375	6,540	7,210
RESIDENTIAL ACCOMMODATION	33,420	34,800	38,360
TOTAL NET AREA REQUIREMENT	65,145	82,040	87,070
TOTAL GROSS AREA REQUIREMENT*	104,232	131,264	139,312

* Based on 1.6 net to gross ratio.

accommodation standards, discussions with both Treasury Board and Department of Public Works indicated that, other than standards for administrative space, there are no applicable space allocation standards for training colleges. Accordingly, the standards used in determining facility requirements for a Correctional Service of Canada training college(s) were developed through consultation with the Facilities Planning Division. A detailed listing of standards used appear in Appendix C, page 56.

These standards were then compared where possible to those used by two other departments, namely the Department of Transport and Customs and Excise, in the planning and construction of their recently approved training colleges. (See Appendix C, page 59.) Since none of the space allocation standards proposed for use in this report exceeded those approved for the other departments, they were considered reasonable and were used in conjunction with the capacity figures to determine the total facility size requirements for each alternative as shown in Exhibit C on the opposite page. A more detailed breakdown of facility size requirements appears in Appendix C, page 60.

Although the total training load for each of the three alternatives is the same, the necessity of having two separate colleges for alternatives 2 and 3 and the resultant duplication of some facilities considerably increases the total facility requirements. Alternative 1, the establishment of one National Staff College, represents the most efficient alternative in terms of facility requirements.

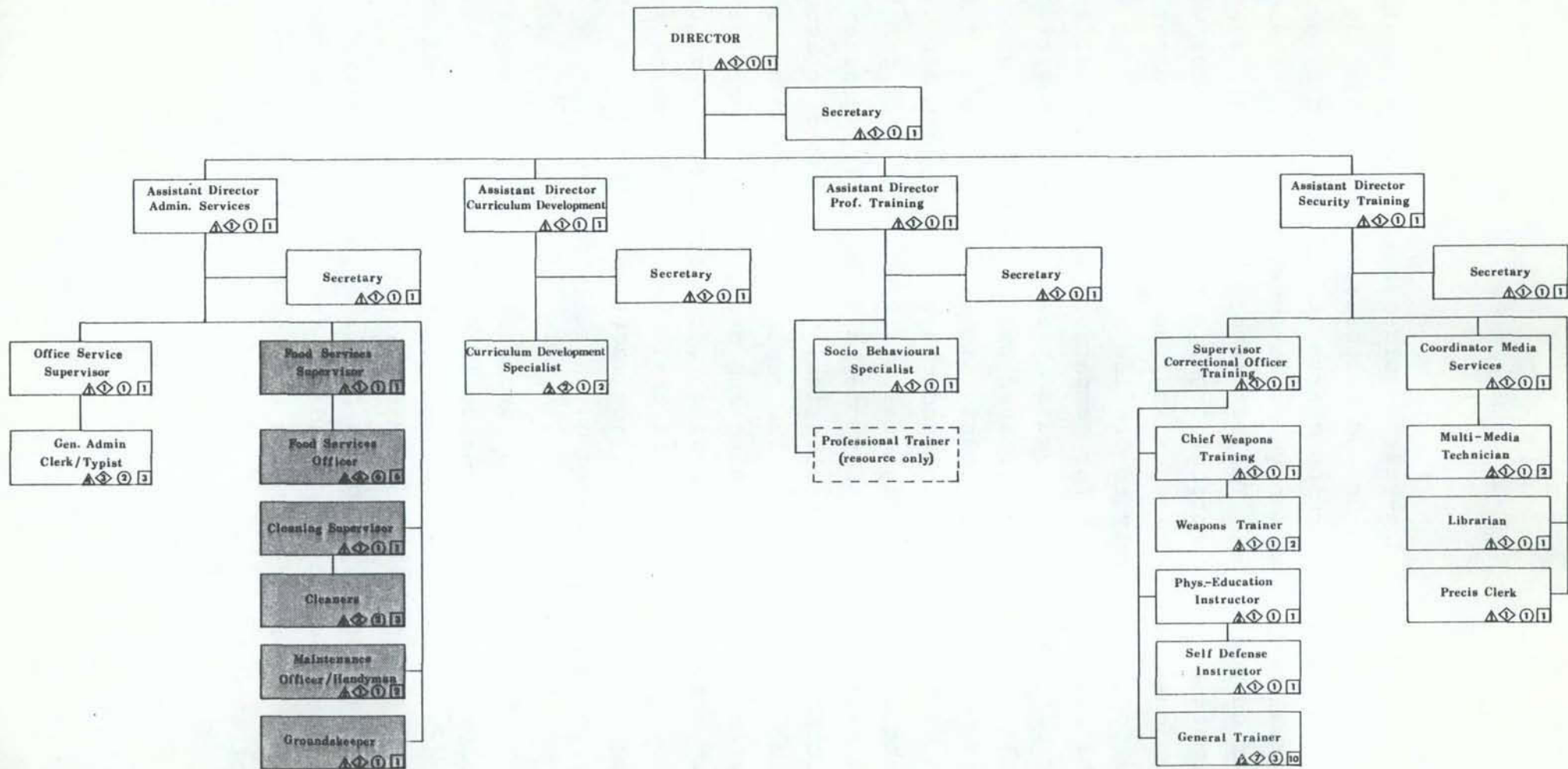
MAN-YEARS

The projected man-year requirements for a national staff college(s) were based on two factors; the positions identified on the sample organization charts (Exhibits D and E) and on the actual number of man-years attached to each of these identified positions. The sample organization charts are an amalgamation of the current organizational structures within the regional staff colleges and, as such, are not meant to be definitive, but merely to provide a realistically base and standardized framework for comparison of the alternatives. The actual number of man-years attached to each position for each alternative was determined using the training and facility needs data previously discussed combined with information on operational standards gained through discussions with the Directors at regional staff colleges. In particular, it was determined that only one half (50%) of a trainer or instructor's time can realistically be allocated to actual training or instruction. The remaining 50% would be variously allocated to course planning and preparation and training support activities. Accordingly, the total number of trainer man-years, including general trainers, weapons trainers, physical education and self-defence instructors, allocated to each alternative was based on this assumption.

Although the position "professional trainer" appears on the sample organization charts in Exhibit D, no permanent man-years have been allocated to it. It was assumed that the Assistant Director of Professional Training would coordinate the use of resource people either from within the Correctional Service of Canada or from external sources on a temporary, as-required basis and would, therefore, not have need of any man-years.

**SAMPLE ORGANIZATION CHART
NATIONAL STAFF COLLEGE***

Exhibit D

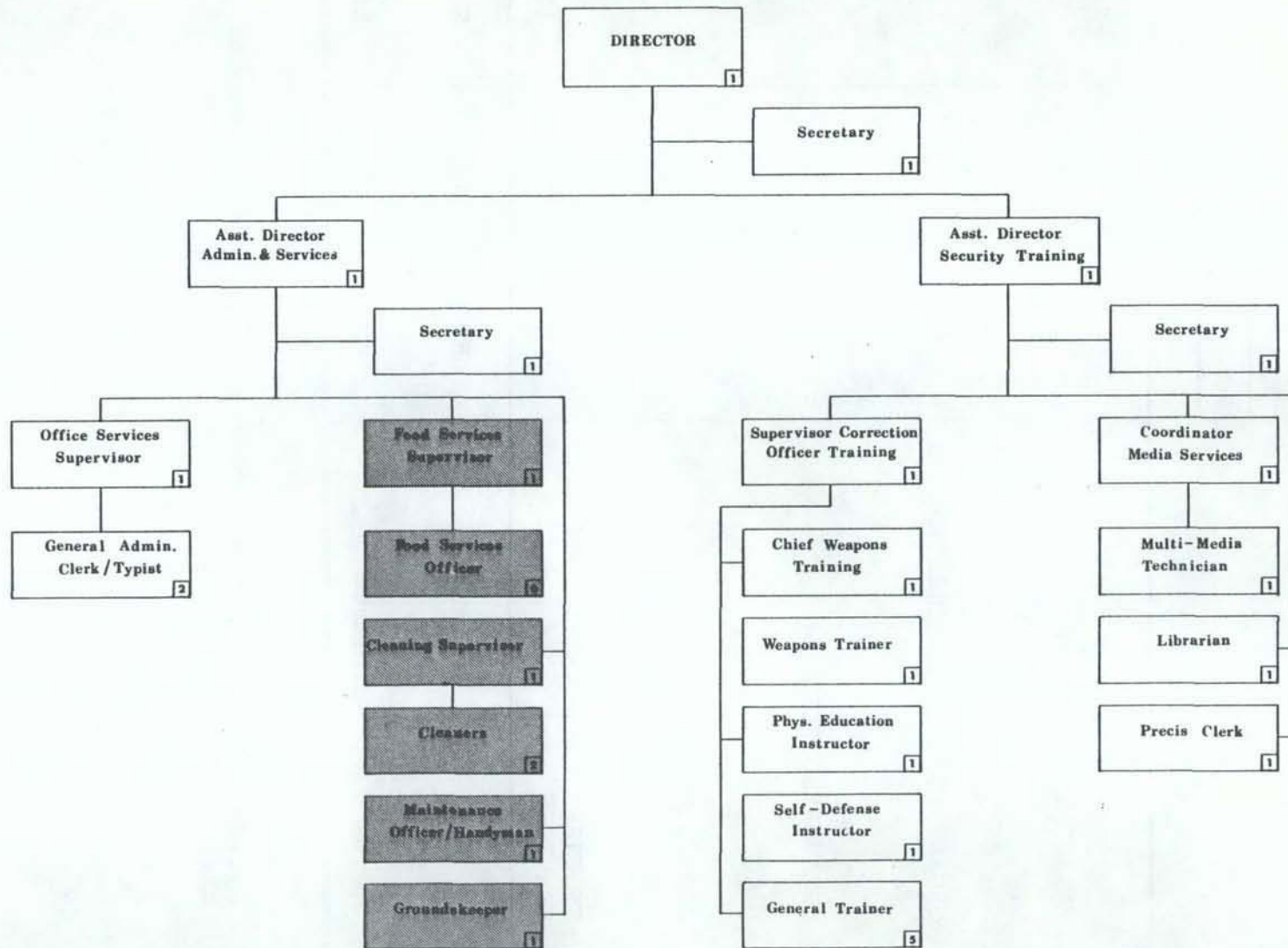


* LEGEND:
 Number of man-years for:
 ▲ Alternative 1
 ◇ Alternative 2 (Refresher and Other)
 ○ Alternative 3 (French)
 □ Alternative 3 (English)
 ■ Optional services can be contracted out

17

**SAMPLE ORGANIZATION CHART
NATIONAL STAFF COLLEGE
Alternative 2 - Induction**

Exhibit E



LEGEND:

1 Number of Man-Years

 Optional services can be contracted out

1
18
1

SUMMARY OF MAN-YEAR REQUIREMENTS

	ALTERNATIVES		
	1	2	3
MANAGEMENT GENERAL	2	4	4
ORGANIZATION & ADMINISTRATION	7	11	11
HUMAN RESOURCES	34	41	50
FOOD SERVICES*	9	14	14
ENGINEERING & ARCHITECTURAL SERVICES *	8	10	12
TOTAL - Maximum	60	80	91
TOTAL - Minimum	43	56	65

* Optional in that these services can be contracted out thereby minimizing man-year requirement.

The projected man-year requirements for each alternative, as detailed in Exhibit F on the opposite page, have been calculated on both a maximum and minimum utilization basis. A detailed breakdown of man-years by type of position appears in Appendix D, page 61. The maximum requirements are based on the assumption that all operational functions at the college(s) will be carried out by Correctional Service of Canada employees. The minimum requirements, on the other hand, are based on the assumption that the service functions, food, cleaning and maintenance services, will be handled by contract thereby eliminating the need for any man-year allocation to these areas.

Again, it should be noted that the total training load is the same for each of the three alternatives. In terms of man-years, then, alternative 1 is the most efficient alternative regardless of whether all services are carried out by Correctional Service of Canada employees or are contracted out. The additional man-years required to staff the colleges involved in alternative 2 and 3 are due solely to duplication of functions and not to any additional work load.

TIMING

Once a decision to proceed with the establishment of a National Staff College(s) has been made, a minimum of three years will be required before it will be fully operative. This allows an initial one year period for planning and design followed by a two year construction period. The Correctional Service of Canada will have, during this three year period, the time required to develop operational policies and procedures and to develop new and/or revise existing programs for use at the national staff college(s). It will also allow ample time to phase out the operation of each of the five

regional staff colleges, to recruit any necessary support staff from the area of the new college(s) and to identify and relocate the professional staff.

The estimate of a three year time requirement is a minimum in that it assumes that the project will have full senior management support, that Treasury Board approval will not be a difficult and lengthy procedure and that site selection will not present any difficulties. It is not unrealistic to extend the time span from decision point to date of occupancy to five years should any or all of these assumptions not apply.

If a decision was made to renovate and expand either one or both of the current Ontario and Quebec staff college sites, it would be possible to use a phase-in approach. The existing facilities complemented by the use of external facilities on a temporary, as-needed basis could be used during the construction period. The effects of such an approach, both in terms of financial implications and in terms of training standards, should be considered before any recommendation can be made on the feasibility of such an approach.

**EVALUATION OF
ALTERNATIVES**

EVALUATION OF ALTERNATIVES

The three national staff college(s) alternatives were evaluated on the basis of capital costs, relocation costs, operating and maintenance costs, travel cost, salaries cost, unit cost and man-year requirements. Each alternative was not only compared to the other two, but was also compared to the current five regional staff college operation.

It should be noted that the calculation of projected costs and man-year requirements for each of the national staff college(s) alternatives was based on the training and facility needs previously identified. However, no attempt was made to examine or incorporate the costs and man-years which might be required to ensure that the five regional staff colleges could also meet these training and facility needs. The comparison made was between the costs and man-years now being consumed by the staff college system and those costs and man-years which would be involved if a decision was made to establish a national staff college(s).

Capital costs were calculated in two ways for each alternative. Firstly, it was assumed that a new college, site undetermined, would be built according to the identified facility requirements. The "building cost" figure, therefore, reflects the projected architectural, construction and fixed equipment costs for such a facility. Secondly, it was assumed that the present site of the Ontario and/or Quebec staff college would be selected, renovated and expanded to meet the facility requirements. The "renovation or alteration cost" figure then reflects an estimate of the associated architectural, construction and fixed equipment costs. The total capital cost figure is not an arithmetic total of

building and renovation or alteration costs, but is the highest cost figure of the two.

Although the cost of land can be considered a relevant capital cost, it has not been included in this report for two reasons. Adequate land to accommodate a national staff college(s) is available at both the current Ontario and Quebec Regional staff college sites. This land is owned by the Correctional Service of Canada and is already serviced. There would be no cost of land associated with a decision to locate at either of these sites. Since no other prospective sites have been specifically identified at this time and the cost of purchasing and servicing land is subject to considerable variation depending on location, it would not be possible to estimate a realistic "cost of land" figure.

Calculation of relocation cost was based on the assumption that it will be necessary to relocate 70% of the minimum man-year requirement to staff the college(s) at an estimated cost of \$13,100 per relocated employee (refer to Appendix E, page 65 for breakdown of relocation cost per employee). Although the use of this assumption results in an unrealistically high relocation cost, it was not possible to determine it more accurately as it is not feasible to predict which of the current regional staff college employees would retain a position at a national staff college(s). No estimate of relocation cost is provided for Alternative 3 - French staff college as it is assumed that the location would remain in the Montreal area and that the majority of employees would be selected from the current Quebec Regional Staff College staff establishment.

Operating and maintenance costs, both site and operations related, for the five regional staff colleges were obtained from the 1979-1980 main estimates with adjustments made for

any known major changes. The costs for the Quebec and Ontario staff colleges were then used as guidelines in the cost estimation procedure for the national staff college(s) alternatives.

Site-related operating and maintenance costs are calculated in two ways. The maximum figure coincides with the maximum man-year requirement and indicates the cost of providing all services internally. For example, the cost of food, cleaning supplies and general maintenance items are included in the maximum site-related operating and maintenance costs. The minimum figure coincides with the minimum man-year requirement. The estimated cost of a contractual agreement to provide food, cleaning and maintenance services was included in the site-related operating and maintenance costs; a cost which precludes the need for a more detailed costing of food and supplies. The actual contract prices used were \$13.75 per training day for food and maid services and \$1.00 per annum per net square foot for building maintenance and cleaning. These prices were provided by a national contract service company which currently provides similar services to other government departments.

The salaries costs for the five regional staff colleges were also taken from the 1979-1980 main estimates and revised as necessary to reflect any changes effected in the recent man-year reduction exercise. Salaries costs for the national staff college(s) alternatives were based on the projected man-year requirements, as previously detailed, and on the established average salaries for the involved position classifications. Both maximum and minimum salaries costs are provided to coincide with the projected maximum and minimum man-year requirements.

Travel costs were calculated on the assumption that all trainees from a given region, with the exception of the Prairie Region, would originate from the same city. No attempt was made to incorporate any travel cost from the trainees home to these cities. Calculations were, therefore, based on current economy air fares, and bus fare where applicable, from Moncton-Atlantic Region, Montreal-Quebec Region, Kingston-Ontario Region and Vancouver-Pacific Region. The total man-years assigned to the Prairie Region were broken down by percentage for each of the three involved provinces and these percentages were applied to the projected number of trainees to assist in calculation of travel cost. The cities of origination used were Winnipeg-Manitoba, Saskatoon-Saskatchewan and Edmonton-Alberta.

Two travel cost figures have been calculated. The maximum travel cost incorporates the effect of the Treasury Board travel directive which entitles an employee to a paid trip home every three weeks. It was, therefore, necessary to include the cost of three return trips per CX-COF induction trainee and four return trips per CX-LUF induction trainee. After discussions with the Chief of Staff Relations of the Correctional Service of Canada it was determined that there is nothing in the union agreement which would preclude the Correctional Service of Canada from including a waiver of the travel directive rights in the employment contract which every incoming employee signs before achieving induction trainee status. The minimum travel cost figure is based on the assumption that a policy decision is made to utilize this waiver and as a result only one return trip per trainee, regardless of course or duration, has been costed. (Refer to Appendix E, page 66 for all travel cost details and calculations.)

Travel costs will be subject to variation depending on the site(s) selected for the National Staff College(s). As this final site has not as yet been selected, travel costs were calculated for each of the proposed sites, Kingston, Ottawa and Montreal. The highest cost site in terms of travel was Kingston. Therefore, as a basis of comparison the travel costs indicated for each alternative are the maximum travel costs to a college in Kingston. The only exception is Alternative 3 - French Staff College. In this case, it is again assumed that the location would remain in Montreal area thus eliminating travel costs.

The final cost used for evaluation is unit cost, the cost per trainee per training day, calculated using total operating and maintenance costs and the projected training load for 1980-1981. Maximum and minimum unit costs are calculated to coincide with the operating and maintenance costs previously determined. In each case, the maximum cost was used as the basis of comparison with the cost of the current operation of five regional staff colleges.

The aforementioned financial and man-year considerations to be used in the evaluation process are tabled for the three national staff college(s) alternatives and for the current five regional staff college systems in Exhibits G through J inclusive. Please refer to Appendix F, page 70 for all detailed calculations.

ALTERNATIVE 1
FINANCIAL AND MAN-YEAR CONSIDERATIONS

	RESOURCE UTILIZATION	
	Maximum	Minimum
CAPITAL COSTS		
Building Cost	\$7,459,318	\$7,459,318
Renovation or Alteration Cost	4,393,263	4,393,263
Other Costs (Equipment)	N/A	N/A
TOTAL	\$7,459,318	\$7,459,318
RELOCATION COST	\$ 393,000	\$ 393,000
OPERATING AND MAINTENANCE COST		
Site Related Cost	\$ 508,750	\$1,004,543 *
Operations Related Cost	397,450	397,450
Salaries Cost	1,105,000	849,000
Travel Cost	650,718	650,718
TOTAL	\$2,661,918	\$2,901,711
UNIT COST	\$ 61.98	\$ 67.56
MAN-YEAR UTILIZATION	60	43

Maximum - total use of in-house man-years.

Minimum - use of in-house and contract personnel.

* - higher cost mainly due to contract personnel.

ALTERNATIVE 2
FINANCIAL AND MAN-YEAR CONSIDERATIONS

Exhibit H

	INDUCTION		REFRESHER & OTHER		TOTAL	
	RESOURCE UTILIZATION		RFSOURCE UTILIZATION		RESOURCE UTILIZATION	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
CAPITAL COSTS						
Building Cost	\$4,465,457	\$4,465,457	\$5,035,179	\$5,035,179	\$9,500,636	\$9,500,636
Renovation or Alteration Cost	2,875,868	2,875,868	2,493,679	2,493,679	5,369,457	5,369,457
Other Costs (Equipment)	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	\$4,465,457	\$4,465,457	\$5,035,179	\$5,035,179	\$9,500,636	\$9,500,636
RELOCATION COST	\$ 209,600	\$ 209,600	\$ 301,300	\$ 301,300	\$ 530,900	\$ 530,900
OPERATING AND MAINTENANCE COST						
Site Related Cost	\$ 320,650	\$ 499,885*	\$ 411,440	\$ 658,213 *	\$ 732,090	\$1,158,098 *
Operations Related Cost	215,700	215,700	183,750	183,750	399,450	399,450
Salaries Cost	631,000	449,000	826,000	644,000	1,457,000	1,093,000
Travel Cost	273,392	273,392	377,326	377,326	650,718	650,718
TOTAL	\$1,440,742	\$1,437,977	\$1,798,516	\$1,863,289	\$3,239,258	\$3,301,266
UNIT COST	\$ 82.73	\$ 82.57	\$ 70.43	\$ 72.97	\$ 75.42	\$ 76.86
MAN-YEAR UTILIZATION	35	23	45	33	80	56

Maximum - total use of in-house man-years.

Minimum - use of in-house and contract personnel.

* - higher cost mainly due to contract personnel.

ALTERNATIVE 3
FINANCIAL AND MAN-YEAR CONSIDERATIONS

	FRENCH		ENGLISH		TOTAL	
	RESOURCE UTILIZATION		RESOURCE UTILIZATION		RESOURCE UTILIZATION	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
CAPITAL COSTS						
Building Cost	\$3,924,564	\$3,924,564	\$6,141,357	\$6,141,357	\$10,065,921	\$10,065,921
Renovation or Alteration Cost	2,102,755	2,102,755	3,279,785	3,279,785	5,382,540	5,382,540
Other Costs (Equipment)	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	\$3,924,564	\$3,924,564	\$6,141,357	\$6,141,357	\$10,065,921	\$10,065,921
RELOCATION COST	-	-	\$ 353,700	\$ 353,700	\$ 353,700	\$ 353,700
OPERATING AND MAINTENANCE COST						
Site Related Cost	\$ 290,950	\$ 399,509*	\$ 446,050	\$ 763,902*	\$ 737,000	\$ 1,163,411*
Operations Related Cost	119,500	119,500	259,222	259,222	378,722	378,722
Salaries Cost	710,000	528,000	957,000	745,000	1,667,000	1,273,000
Travel Cost	-	-	610,326	610,326	610,326	610,326
TOTAL	\$1,120,450	\$1,047,009	\$2,272,598	\$2,378,450	\$ 3,393,048	\$ 3,425,459
UNIT COST	\$ 85.58	\$ 79.97	\$ 76.11	\$ 79.66	\$ 79.00	\$ 79.75
MAN-YEAR UTILIZATION	39	27	52	38	91	65

Maximum - total use of in-house man-years.

Minimum - use of in-house and contract personnel.

* - higher cost mainly due to contract personnel.

FINANCIAL AND MAN-YEAR CONSIDERATIONS
Current Regional Staff College Operation

Exhibit J

	ATLANTIC	QUEBEC	ONTARIO	PRAIRIE	PACIFIC	TOTAL
CAPITAL COSTS						
Building Cost	N/A	N/A	N/A	N/A	N/A	N/A
Renovation or Alteration Cost	N/A	N/A	N/A	N/A	N/A	N/A
Other Costs (Equipment)	\$ 2,200	\$ 18,860	\$ 18,560	\$ 24,813		\$ 64,433
TOTAL	\$ 2,200	\$ 18,860	\$ 18,560	\$ 24,813	-	\$ 64,433
RELOCATION COST	N/A	N/A	N/A	N/A	N/A	N/A
OPERATING AND MAINTENANCE COST						
Site Related Cost	\$218,197	\$ 224,970	\$ 435,381	\$ 536,510	\$248,307	\$1,663,365
Operations Related Cost	41,044	128,140	152,772	87,802	60,495	470,253
Salaries Cost	101,362	816,878	592,487	490,367	184,792	2,185,886
Travel Cost	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	\$360,603	\$1,169,988	\$1,180,640	\$1,179,527	\$493,594	\$4,384,352
UNIT COST	\$ 120.60	\$ 89.37	\$ 132.79	\$ 147.67	\$ 50.40	\$ 102.08
MAN-YEAR UTILIZATION	5	43	32	27	10	117

ANALYSIS

ANALYSIS

To facilitate comparison of the alternatives a summary of the financial and man-year considerations appears in Exhibit K on the following page. The unit cost figure, in as much as it is based on the same projected training load for each alternative and for the current regional staff college operation and incorporates all costs of a recurring nature, is perhaps the most useful for comparative purposes.

It is obvious that Alternative 1, the establishment of one national staff college, is the best in terms of unit cost and man-year utilization regardless of whether maximum or minimum Correctional Service of Canada resources are utilized.

The unit cost and man-year requirements for Alternative 2 are somewhat higher due to the duplication of some facilities and of administrative and service functions necessitated by the proposed existence of two separate colleges. There would be no duplication of training involved in alternative 2 as the induction training and refresher and other training would not overlap, therefore this alternative ranks as the second best in terms of unit cost and man-year requirements.

Of the three alternatives, alternative 3 has the highest unit cost and man-year requirement. This is due to the fact that there would be duplication of all facilities and all college functions including training. Both the French training college and English training college would require a full complement of facilities and man-years for induction and refresher and other training, again regardless of whether maximum or minimum Correctional Service of Canada resources were utilized.

COMPARISON OF FINANCIAL AND MAN-YEAR CONSIDERATIONS

Exhibit K

	ALTERNATIVE 1		ALTERNATIVE 2		ALTERNATIVE 3		TOTAL (5 REGIONAL)
	RESOURCE UTILIZATION		RESOURCE UTILIZATION		RESOURCE UTILIZATION		
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	
CAPITAL COSTS							
Building Cost	\$ 7,459,318	\$ 7,459,318	\$ 9,500,636	\$ 9,500,636	\$ 10,065,921	\$ 10,065,921	n/a
Renovation or Alteration Cost	4,393,263	4,393,263	5,369,457	5,369,457	5,382,540	5,382,540	n/a
Other Costs (Equipment)	n/a	n/a	n/a	n/a	n/a	n/a	\$ 64,433
TOTAL	\$ 7,459,318	\$ 7,459,318	\$ 9,500,636	\$ 9,500,636	\$ 10,065,921	\$ 10,065,921	\$ 64,433
RELOCATION COST	\$ 393,000	\$ 393,000	\$ 530,900	\$ 530,900	\$ 353,700	\$ 353,700	n/a
OPERATING AND MAINTENANCE COST							
Site Related Cost	\$ 508,750	\$ 1,004,543 *	\$ 732,090	\$ 1,158,098 *	\$ 737,000	\$ 1,163,411 *	\$ 1,663,365
Operations Related Cost	397,450	397,450	399,450	399,450	378,722	378,722	470,253
Salaries Cost	1,105,000	849,000	1,457,000	1,093,000	1,667,000	1,273,000	2,185,886
Travel Cost	650,718	650,718	650,718	650,718	610,326	610,326	64,848
TOTAL	\$ 2,661,918	\$ 2,901,711	\$ 3,239,258	\$ 3,301,266	\$ 3,393,048	\$ 3,425,459	\$ 4,384,352
UNIT COST	\$ 61.98	\$ 67.56	\$ 75.42	\$ 76.86	\$ 79.00	\$ 79.75	\$ 102.08
MAN-YEAR UTILIZATION	60	43	80	56	91	65	117

- Maximum - total use of in-house man-years
- Minimum - use of in-house and contract personnel
- * - higher cost mainly due to contract personnel

Although the aforementioned differences in unit cost and man-year requirements exist between the three alternatives, the choice of any one of them would represent a considerable saving to the Correctional Service of Canada over maintenance of the current regional staff college system. The effect in expected annual savings in operating and maintenance costs of each of the alternatives is listed below:

EXPECTED ANNUAL SAVINGS
IN OPERATING AND MAINTENANCE COSTS
OVER CURRENT COST OF REGIONAL STAFF COLLEGE SYSTEM

	RESOURCE UTILIZATION	
	Maximum*	Minimum**
Alternative 1 One National Staff College	\$1,722,434	\$1,482,641
Alternative 2 Two National Staff Colleges (1 Induction - 1 Refresher and Other)	\$1,145,094	\$1,083,086
Alternative 3 Two National Staff Colleges (1 French - 1 English)	\$ 991,304	\$ 958,893

* Maximum - total use of in-house man-years.

** Minimum - use of in-house and contract personnel.

It should be noted that these savings are based on a calculation of costs which includes maximum travel costs. If a policy decision was made to waive the Treasury Board travel directive for induction trainees, as discussed earlier in this report, additional savings of approximately \$125,000 would be attained.

Another point which should be noted is the difference in anticipated savings between the maximum and minimum resource utilization figures. Although the man-year requirements and associated salaries costs are reduced if minimum Correctional Service of Canada resources are utilized, an increase in expected site-related operating and maintenance costs will occur. However, the estimated contract cost included in the site-related operating and maintenance costs for minimum resource utilization are high because the contract service company must assume the risk for fluctuation in prices and in college utilization. There is no corresponding risk factor built into the site-related operating and maintenance costs for maximum resource utilization so these costs could be subject to considerable variation. That being the case, the decision whether to opt for minimum or maximum resource utilization will not be as clear-cut as it may at first appear.

The capital costs associated with each of the three alternatives appear quite high in comparison to those indicated for the current regional staff college operation. There are two points which should be weighed against the necessary capital expenditures. All capital expenditures (building cost only) will have been recovered after a five-year period for alternative 1, a nine-year period for alternative 2, and a ten-year period for alternative 3.

The second point to note is that no building and renovation or alteration costs have been included in the capital costs for the current regional staff college operation. However, if the decision was made to maintain these colleges capital expenditure would be necessary to ensure that the regional facilities could adequately handle the projected training requirements. In fact, a proposal for expansion of the Kingston Staff College at an anticipated cost of \$672,450

has been submitted and is currently awaiting approval. One should, therefore, not automatically conclude that the regional staff college system is the best choice in terms of capital costs.

Due to the fact that Alternative 1 - one national staff college involves no duplication of facilities, it again is the best alternative in terms of facility requirements and associated capital cost. Alternative 2 represents the second best alternative in terms of capital cost in that duplication of some facilities will be necessary followed by alternative 3, involving the most facility duplication.

There will be no appreciable difference between the three national staff college(s) alternatives in terms of timing. Whether a decision is made to build one or two colleges, the minimum time requirement of three years would apply.

CONCLUSIONS

CONCLUSIONS

Based on the financial and man-year considerations analysed, evaluated and presented in this report, the following conclusions are reached:

- ◆ *Each of the three national college alternative(s) offers the Correctional Service of Canada financial and man-year savings over maintenance of a regional college operation.*
- ◆ *The establishment of one national staff college to handle all Correctional Service of Canada training needs (alternative 1) offers savings of 57 man-years and \$1,722,434 in annual operating and maintenance costs.*
- ◆ *The establishment of one national induction training college and a separate national refresher and other training college (alternative 2) offers savings of 37 man-years and \$1,145,094 in annual operating and maintenance costs.*
- ◆ *The establishment of one national college to handle French training and a separate college to handle English training (alternative 3) offers savings of 26 man-years and \$991,304 in annual operating and maintenance costs.*
- ◆ *A decision to contract out "hotel services" will result in additional man-year savings of approximately 30% for each of the three national college(s) alternatives.*

- ◆ *The specific location(s) selected for establishment of a national college(s) will not affect the financial and man-year considerations, with the exception of travel costs.*

- ◆ *The establishment of a National Correctional Service of Canada staff college(s) regardless of the specific alternative selected will require a minimum of three years before the facility will be ready for full occupancy.*

APPENDICES

IDENTIFICATION OF TRAINING NEEDS
STEP-BY-STEP PROCESS

CONTENTS

			<u>Page</u>
TABLES:			
1	: Steps 1 and 2	- CPS Inmate Population Forecast - Fiscal Year End (Inmates on Register) and CSC Staff Establishment Forecast (Man-Years)	A- 1
2	: Step 3	- 1980/81 Man-Year Allocation	A- 2
3	: Step 4	- CSC Staff Establishment Forecast and Man-Year Allocation	A- 3
4	: Step 5	- Actual CSC Turnover Rates (%)	A- 4
5	: Step 6	- Estimated CSC Turnover Rates (%)	A- 5
6	: Step 7	- Projected Number of Induction Trainees	A- 6
7	: Step 8	- Assumptions Regarding Course Duration	A- 7
8	: Step 9	- Projected Number of Candidates for Refresher and Other Training	A- 8
9a	: Step 10	- Projected National Staff College Utilization - Alternative 1 - One National Staff College	A- 9
9b	: Step 10	- Projected National Staff College Utilization - Alternative 2 - Induction Training	A-10
9c	: Step 10	- Projected National Staff College Utilization - Alternative 2 - Refresher and Other Training	A-11
9d	: Step 10	- Projected National Staff College Utilization - Alternative 3 - French and English Training	A-12

STEPS 1 & 2

Table 1

	1980/81	1981/82	1982/83	1983/84	1984/85
CPS INMATE POPULATION FORECAST - FISCAL YEAR END (Inmates on Register)	10,257	10,457	10,761	11,200	11,326
CSC STAFF ESTABLISHMENT FORECAST (Man-Years)	9,983	10,163	10,437	10,832	10,945

CONVERSION METHOD:

- a) Use approved .9 to 1 staff to inmate ratio
- b) Add current National Parole Service approved staff establishment of 752 (assume zero growth over 5 year period)

10,257	10,457	10,761	11,200	11,326
<u>x .9</u>	<u>x .9</u>	<u>x .9</u>	<u>x .9</u>	<u>x .9</u>
9,231	9,411	9,685	10,080	10,193
<u>+ 752</u>	<u>+ 752</u>	<u>+ 752</u>	<u>+ 752</u>	<u>+ 752</u>
<u>9,983</u>	<u>10,163</u>	<u>10,437</u>	<u>10,832</u>	<u>10,945</u>

1980/81 MAN-YEAR ALLOCATION

(APPROVED OPERATIONAL PLANNING RECOMMENDATION)

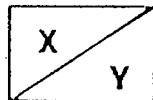
STEP 3

Table 2

	CX-COF		CX-LUF		OTHER		TOTAL	
	MAN-YEARS	%	MAN-YEARS	%	MAN-YEARS	%	MAN-YEARS	%
NHQ*	-	-	-	-	493	100	493	100
ATLANTIC	278	34.7	76	9.5	448	55.8	802	100
QUEBEC	1,103	37.7	366	12.5	1,457	49.8	2,926	100
ONTARIO	795	35.5	162	7.2	1,280	57.3	2,237	100
PRAIRIE	575	30.8	235	12.6	1,059	56.6	1,869	100
PACIFIC	566	34.2	151	9.1	939	56.7	1,656	100
TOTAL	3,317	N/A	990	N/A	5,676	N/A	9,983	N/A

* assume zero growth for NHQ

LEGEND:



X = percentage of total regional man-years

Y = percentage of CSC man-years allocated to particular category

- 41 -

CSC STAFF ESTABLISHMENT FORECAST AND MAN-YEAR ALLOCATION
(1980/81 THROUGH 1984/85)

STEP 4

Table 3

	1980-1981				1981-1982				1982-1983				1983-1984				1984-1985			
	CX-COF	CX-LUF	OTHER	TOTAL	CX-COF	CX-LUF	OTHER	TOTAL	CX-COF	CX-LUF	OTHER	TOTAL	CX-COF	CX-LUF	OTHER	TOTAL	CX-COF	CX-LUF	OTHER	TOTAL
NHQ *	-	-	493	493	-	-	493	493	-	-	493	493	-	-	493	493	-	-	493	493
ATLANTIC	278	76	448	802	285	78	459	822	293	80	472	845	305	84	490	879	308	84	496	888
QUEBEC	1,103	366	1,457	2,926	1,123	372	1,483	2,978	1,155	383	1,525	3,063	1,200	398	1,586	3,184	1,214	402	1,603	3,219
ONTARIO	795	162	1,280	2,237	810	164	1,308	2,282	833	169	1,345	2,347	866	176	1,398	2,440	875	178	1,414	2,467
PRAIRIE	575	235	1,059	1,869	587	240	1,078	1,905	603	247	1,109	1,959	627	257	1,153	2,037	635	259	1,165	2,059
PACIFIC	566	151	939	1,656	576	153	954	1,683	592	157	981	1,730	615	164	1,020	1,799	622	166	1,031	1,819
TOTAL	3,317	990	5,676	9,983	3,381	1,007	5,775	10,163	3,476	1,036	5,925	10,437	3,613	1,079	6,140	10,832	3,654	1,089	6,202	10,945

- 42 -

* assume zero growth in NHQ staff establishment

**ACTUAL CSC
TURNOVER RATES (%)**

STEP 5

Table 4

	CX - COF				CX - LUF				OTHER CSC			
	1975/76	1976/77	1977/78	MEDIAN	1975/76	1976/77	1977/78	MEDIAN	1975/76	1976/77	1977/78	MEDIAN
ATLANTIC	4.2	3.0	2.9	3.5	4.2	3.3	4.3	3.8	5.3	n o t a v a i l a b l e	6.8	6.0
QUEBEC	6.9	4.8	6.5	5.8	2.6	2.3	4.2	3.1	6.9		7.3	7.1
ONTARIO	8.3	5.0	3.8	6.0	1.8	1.8	3.0	2.5	8.2		4.5	6.3
PRAIRIE	7.7	6.9	4.8	6.3	4.5	8.3	3.1	5.7	7.4		7.7	7.5
PACIFIC	23.2	12.2	8.5	15.8	3.2	2.7	3.5	3.3	16.1		10.3	13.2

- 43 -

ESTIMATED CSC
TURNOVER RATES (%)

A-5

STEP 6

Table 5

	CX-COF			CX-LUF			OTHER CSC		
	max.	m.l.	min.	max.	m.l.	min.	max.	m.l.	min.
ATLANTIC	4.5	3.5	2.5	4.8	3.8	2.8	7.0	6.0	5.0
QUEBEC	6.8	5.8	4.8	4.1	3.1	2.1	8.1	7.1	6.1
ONTARIO	7.0	6.0	5.0	3.5	2.5	1.5	7.3	6.3	5.3
PRAIRIE	7.3	6.3	5.3	6.7	5.7	4.7	8.5	7.5	6.5
PACIFIC	16.8	15.8	14.8	4.3	3.3	2.3	14.2	13.2	12.2

max. = maximum (median of actual CSC turnover rates from step 5 + 1% variance)
 m.l. = most likely (median of actual CSC turnover rates from step 5)
 min. = minimum (median of actual CSC turnover rates from step 5 - 1% variance)

PROJECTED NUMBER OF INDUCTION TRAINEES

STEP 7

Table 6

		1980-1981			1981-1982			1982-1983			1983-1984			1984-1985		
		CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF	NON-CX
ATLANTIC	max.	13	4	31	13	4	32	13	4	33	14	4	34	14	4	35
	m.l.	10	3	27	10	3	28	10	3	28	11	3	29	11	3	30
	min.	7	2	22	7	2	23	7	2	24	8	2	25	8	2	25
QUEBEC	max.	75	15	118	76	15	120	79	16	124	82	16	128	83	16	130
	m.l.	64	11	103	65	12	105	67	12	108	70	12	113	70	12	114
	min.	53	8	89	54	8	90	55	8	93	58	8	98	58	8	98
ONTARIO	max.	56	6	93	57	6	95	58	6	98	61	6	102	61	6	103
	m.l.	48	4	81	49	4	82	50	4	85	52	4	88	53	4	89
	min.	40	2	68	41	2	69	42	3	71	43	3	74	44	3	75
PRAIRIE	max.	42	16	90	43	16	92	44	17	94	46	17	98	46	17	99
	m.l.	36	13	79	37	14	81	38	14	83	40	15	86	40	15	87
	min.	30	11	69	31	11	70	32	12	72	33	12	75	34	12	76
PACIFIC	max.	95	6	133	97	6	135	99	6	139	103	7	145	104	7	146
	m.l.	89	5	124	91	5	126	94	5	129	97	5	135	98	5	136
	min.	84	3	115	85	3	116	88	3	120	91	3	124	92	3	126
TOTAL	max.	281	47	465	286	47	474	293	49	488	306	50	507	308	50	513
	m.l.	247	36	414	252	38	422	259	38	433	270	39	451	272	39	456
	min.	214	26	363	218	26	368	224	28	380	233	28	396	236	28	400

max. = maximum
m.l. = most likely
min. = minimum

STEP 8

Table 7

ASSUMPTIONS REGARDING COURSE DURATION
(In Training Days at a National Staff College)

COURSE	TRAINING DAYS PER TRAINEE
1. CX-COF induction	45
2. CX-LUF induction	60
3. NON-CX induction	10
4. CX-COF, CX-LUF refresher	15 Each CX-COF and CX-LUF employee to attend once every three years
5. All Other	4 10% of total CSC employees to attend each year

PROJECTED NUMBER OF CANDIDATES FOR REFRESHER AND OTHER TRAINING

STEP 9

Table 8

	1980-1981				1981-1982				1982-1983				1983-1984				1984-1985			
	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL
	CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER	
NHQ	-	-	49	49	-	-	49	49	-	-	49	49	-	-	49	49	-	-	49	49
ATLANTIC	93	25	80	198	95	26	82	203	98	27	85	210	102	28	88	218	103	28	89	220
QUEBEC	368	122	293	783	374	124	298	796	385	128	306	819	400	133	318	851	405	134	322	861
ONTARIO	265	54	224	543	270	55	228	553	278	56	235	569	289	59	244	592	292	59	247	598
PRAIRIE	192	78	187	457	196	80	191	467	201	82	196	479	209	86	204	499	212	86	206	504
PACIFIC	189	50	166	405	192	51	168	411	197	52	173	422	205	55	180	440	207	55	182	444
TOTAL	1,107	329	999	2,435	1,127	336	1,016	2,479	1,159	345	1,041	2,548	1,205	361	1,083	2,649	1,219	362	1,095	2,676

1
47
1

PROJECTED NATIONAL STAFF COLLEGE UTILIZATION
(Training Days)

STEP 10

Alternative 2 - Induction Training

Table 9b

		1980-1981				1981-1982				1982-1983				1983-1984				1984-1985			
		CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL
A T L A N T I C	max.	585	240	310	1,135	585	240	320	1,145	585	240	330	1,155	630	240	340	1,210	630	240	350	1,220
	m.l.	450	180	270	900	450	180	280	910	450	180	280	910	495	180	290	965	495	180	300	975
	min.	315	120	220	655	315	120	230	665	315	120	240	675	360	120	250	730	360	120	250	730
Q U E B E C	max.	3,375	900	1,180	5,455	3,420	900	1,200	5,520	3,555	960	1,240	5,755	3,690	960	1,280	5,930	3,735	960	1,300	5,995
	m.l.	2,880	660	1,030	4,570	2,925	720	1,050	4,695	3,015	720	1,080	4,815	3,150	720	1,130	5,000	3,150	720	1,140	5,010
	min.	2,385	480	890	3,755	2,430	480	900	3,810	2,475	480	930	3,885	2,610	480	980	4,070	2,610	480	980	4,070
O N T A R I O	max.	2,520	360	930	3,810	2,565	360	950	3,875	2,610	360	980	3,950	2,745	360	1,020	4,125	2,745	360	1,030	4,135
	m.l.	2,160	240	810	3,210	2,205	240	820	3,265	2,250	240	850	3,340	2,340	240	880	3,460	2,385	240	890	3,515
	min.	1,800	120	680	2,600	1,845	120	690	2,655	1,890	180	710	2,780	1,935	180	740	2,855	1,980	180	750	2,910
P R A I R I E	max.	1,890	960	900	3,750	1,935	960	920	3,815	1,980	1,020	940	3,950	2,070	1,020	980	4,070	2,070	1,020	990	4,080
	m.l.	1,620	780	790	3,190	1,665	840	810	3,315	1,710	840	830	3,380	1,800	900	860	3,560	1,800	900	870	3,570
	min.	1,350	660	690	2,700	1,395	660	700	2,755	1,440	720	720	2,880	1,485	720	750	2,955	1,520	720	760	3,000
P A C I F I C	max.	4,275	360	1,330	5,965	4,365	360	1,350	6,075	4,455	360	1,390	6,205	4,635	420	1,450	6,505	4,680	420	1,460	6,560
	m.l.	4,005	300	1,240	5,545	4,095	300	1,260	5,655	4,230	300	1,290	5,820	4,365	300	1,350	6,015	4,410	300	1,360	6,070
	min.	3,780	180	1,150	5,110	3,825	180	1,160	5,165	3,960	180	1,200	5,340	4,095	180	1,240	5,515	4,140	180	1,260	5,580
T O T A L	max.	12,645	2,820	4,650	20,115	12,870	2,820	4,740	20,430	13,185	2,940	4,880	21,005	13,770	3,000	5,070	21,840	13,860	3,000	5,130	21,990
	m.l.	11,115	2,160	4,140	17,415	11,340	2,280	4,220	17,840	11,655	2,280	4,330	18,265	12,150	2,340	4,510	19,000	12,240	2,340	4,560	19,140
	min.	9,630	1,560	3,630	14,820	9,810	1,560	3,680	15,050	10,080	1,680	3,800	15,560	10,485	1,680	3,960	16,125	10,610	1,680	4,000	16,290

max. = maximum
m.l. = most likely
min. = minimum

**PROJECTED NATIONAL STAFF COLLEGE UTILIZATION
(Training Days)**

Alternative 2 - Refresher and Other Training

Table 9c

STEP 10

	1980-1981				1981-1982				1982-1983				1983-1984				1984-1985			
	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL	REFRESHER		ALL	TOTAL
	CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER		CX-COF	CX-LUF	OTHER	
NHQ	-	-	196	196	-	-	196	196	-	-	196	196	-	-	196	196	-	-	196	196
ATLANTIC	1,395	375	320	2,090	1,425	390	328	2,143	1,470	405	340	2,215	1,530	420	352	2,302	1,545	420	356	2,321
QUEBEC	5,520	1,830	1,172	8,522	5,610	1,860	1,192	8,662	5,775	1,920	1,224	8,919	6,000	1,995	1,272	9,267	6,075	2,010	1,288	9,373
ONTARIO	3,975	810	896	5,681	4,050	825	912	5,787	4,170	840	940	5,950	4,335	885	976	6,196	4,380	885	988	6,253
PRAIRIE	2,880	1,170	748	4,798	2,940	1,200	764	4,904	3,015	1,230	784	5,029	3,135	1,290	816	5,241	3,180	1,290	824	5,294
PACIFIC	2,835	750	664	4,249	2,880	765	672	4,317	2,955	780	692	4,427	3,075	825	720	4,620	3,105	825	728	4,658
TOTAL	16,605	4,935	3,996	25,536	16,905	5,040	4,064	26,009	17,385	5,175	4,176	26,736	18,075	5,415	4,332	27,822	18,285	5,430	4,380	28,095

**PROJECTED NATIONAL STAFF COLLEGE UTILIZATION
(TRAINING DAYS)***

STEP 10

Alternative 3 - French Training

Table 9d

	1980 - 1981							1981 - 1982							1982 - 1983							1983 - 1984							1984 - 1985						
	INDUCTION			REFRESHER		ALL OTHER	TOTAL	INDUCTION			REFRESHER		ALL OTHER	TOTAL	INDUCTION			REFRESHER		ALL OTHER	TOTAL	INDUCTION			REFRESHER		ALL OTHER	TOTAL	INDUCTION			REFRESHER		ALL OTHER	TOTAL
	CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF			CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF			CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF			CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF			CX-COF	CX-LUF	NON-CX	CX-COF	CX-LUF		
max.	3,375	900	1,180	5,520	1,830	1,172	13,977	3,420	900	1,200	5,610	1,860	1,192	14,182	3,555	960	1,240	5,775	1,920	1,224	14,674	3,690	960	1,280	6,000	1,995	1,272	15,197	3,735	960	1,300	6,075	2,010	1,288	15,368
m.l.	2,880	660	1,030	5,520	1,830	1,172	13,092	2,925	720	1,050	5,610	1,860	1,192	13,357	3,015	720	1,080	5,775	1,920	1,224	13,734	3,150	720	1,130	6,000	1,995	1,272	14,267	3,150	720	1,140	6,075	2,010	1,288	14,383
min.	2,385	480	890	5,520	1,830	1,172	12,277	2,430	480	900	5,610	1,860	1,192	12,472	2,475	480	930	5,775	1,920	1,224	12,804	2,610	480	980	6,000	1,995	1,272	13,337	2,610	480	980	6,075	2,010	1,288	13,443
Alternative 3 - English Training																																			
max.	9,270	1,920	3,470	11,085	3,105	2,824	31,674	9,450	1,920	3,540	11,295	3,180	2,872	32,257	9,630	1,980	3,640	11,610	3,255	2,952	33,067	10,080	2,040	3,790	12,075	3,420	3,060	34,465	10,125	2,040	3,830	12,210	3,420	3,092	34,717
m.l.	8,235	1,500	3,110	11,085	3,105	2,824	29,859	8,415	1,560	3,170	11,295	3,180	2,872	30,492	8,640	1,560	3,250	11,610	3,255	2,952	31,267	9,000	1,620	3,380	12,075	3,420	3,060	32,555	9,090	1,620	3,420	12,210	3,420	3,092	32,852
min.	7,245	1,080	2,740	11,085	3,105	2,824	28,079	7,380	1,080	2,780	11,295	3,180	2,872	28,587	7,605	1,200	2,870	11,610	3,255	2,952	29,492	7,875	1,200	2,980	12,075	3,420	3,060	30,610	8,000	1,200	3,020	12,210	3,420	3,092	30,942

* max. = maximum
m.l. = most likely
min = minimum



PROJECTED COLLEGE CAPACITY
AND UTILIZATION DATA

PROJECTED COLLEGE CAPACITY AND UTILIZATION DATA

		ALTERNATIVE 1		ALTERNATIVE 2				ALTERNATIVE 3			
		CAPACITY	UTILIZATION %	INDUCTION		REFRESHER		FRENCH		ENGLISH	
				CAPACITY	UTILIZATION %	CAPACITY	UTILIZATION %	CAPACITY	UTILIZATION %	CAPACITY	UTILIZATION %
1980/81	max.	216	90.7	96	88.5	120	89.0	72	82.4	144	96.9
	m. l.	192	94.2	96	77.1	120	89.0	72	81.0	144	88.2
	min.	192	87.7	72	85.4	120	89.0	72	74.7	144	83.7
1981/82	max.	216	90.1	96	89.6	120	90.6	72	87.1	144	99.3
	m. l.	192	98.0	96	82.8	120	90.6	72	85.0	144	89.9
	min.	192	89.2	72	86.8	120	90.6	72	83.6	144	84.7
1982/83	max.	216	95.0	96	95.3	120	94.7	72	93.3	144	99.9
	m. l.	216	89.4	96	82.8	120	94.7	72	87.1	144	91.3
	min.	192	97.2	96	76.0	120	94.7	72	85.7	144	86.7
1983/84	max.	216	97.2	96	96.4	120	97.8	72	97.4	168	90.4
	m. l.	216	93.7	96	88.5	120	97.8	72	89.7	168	86.5
	min.	192	99.7	96	77.1	120	97.8	72	88.3	144	92.9
1984/85	max.	216	97.2	96	96.4	120	97.8	72	97.4	168	90.6
	m. l.	216	93.7	96	88.5	120	97.8	72	89.7	168	87.3
	min.	192	99.7	96	77.1	120	97.8	72	88.3	144	93.2

max. = maximum
m. l. = most likely
min. = minimum

IDENTIFICATION OF FACILITY NEEDS

CONTENTS

	<u>Page</u>
TABLES	
1 : Space Allocation and Determination Standards for National Staff College(s)	C-1
2 : Training College Size Standards	C-4
3 : Projected Facility and Size Requirements	C-5

Table 1

SPACE ALLOCATION AND DETERMINATION STANDARDS
FOR NATIONAL STAFF COLLEGE(S)

INSTRUCTIONAL SPACE	AREA (Sq.Ft.)
a) Classrooms <ul style="list-style-type: none"> - 24 student capacity - 25 sq.ft. net assignable space per student - assume 65% utilization rate 	600
b) Syndicate Rooms <ul style="list-style-type: none"> - 6 student capacity - 25 sq.ft. net assignable space per student 	150
c) Gymnasium <ul style="list-style-type: none"> - 24 student capacity - includes provision for locker/shower rooms (400 sq.ft.), gymnasium equipment storage and issue (300 sq.ft.) and separate fitness training area (1,000 sq.ft.) 	8,700
d) Indoor Weapons Range <ul style="list-style-type: none"> - 6 position - 300 sq.ft. net assignable space per position - includes provision for armoury and weapons workshop (800 sq.ft.) 	2,600
INSTRUCTIONAL SUPPORT SPACE	
a) Library <ul style="list-style-type: none"> - includes provision for offices for librarian and precis clerk (150 sq.ft.) - size to vary with student capacity 	*

* to be calculated for each alternative; total square footage will vary with size of college.

		<u>AREA</u> (Sq.Ft.)
b)	Audio-Visual Centre - includes provision for coordinator media services office (100 sq.ft.)	600
c)	Precis Room	250
d)	Conference Room - 30 person capacity - 25 sq.ft. net assignable space per person	750
e)	Auditorium - to seat entire student population simultaneously - 12 sq.ft. net assignable space per student	*

ADMINISTRATIVE SPACE

a)	Faculty Offices and Support Space - based on average 100 sq.ft. net assignable space per instructor including general and professional trainers, physical education and self-defence instructors and weapons trainers	*
b)	Administrative Offices and Support	
	- based on following standards:	
	Director	185 sq.ft.
	Secretary to Director	100 sq.ft.
	Assistant Directors	130 sq.ft.
	Secretaries to AD	100 sq.ft.
	Supervisors	120 sq.ft.
	Admin. Clerk/ Typists	80 sq.ft.
	Stationery Storerom	100 sq.ft.
	Central Registry	200 sq.ft.
	Mail Room/ Photocopy	150 sq.ft.

* to be calculated for each alternative; total square footage will vary with size of college.

AREA
(Sq.Ft.)

RESIDENTIAL ACCOMMODATION

a)	Kitchen	- includes provision for cafeteria/straight line servery	1,200
b)	Cafeteria/Dining Room	- 15 sq.ft. net assignable space per diner - assume that there will be 2 sittings for each meal - increase space allowance by 24 for staff and guests	*
c)	Bedrooms	- single occupancy, contains sink only - washroom facilities to be shared - 120 sq.ft. net assignable space per bedroom	*
d)	Common Rooms	- 1 common room per 24 bedrooms - 500 sq.ft. net assignable space per common room	*

* to be calculated for each alternative; total square footage will vary with size of college.

Table 2

TRAINING COLLEGE SIZE STANDARDS

	Department of Transport (Cornwall)	Customs and Excise (Rigaud)	Proposed CSC
Classroom (24 student capacity)	960 sq.ft.	600 sq.ft.	600 sq.ft.
Bedroom (single occupancy including washroom)	190 sq.ft.	190 sq.ft.	120 sq.ft.*
Lounge (24 person capacity)	500 sq.ft.	500 sq.ft.	500 sq.ft.
Dining (allowance per diner)	15 sq.ft.	15 sq.ft.	15 sq.ft.

* Single occupancy includes sink only, other washroom facilities to be common.

Table 3

PROJECTED FACILITY AND SIZE REQUIREMENTS
(BASED ON 84/85 MOST LIKELY CAPACITY)

TYPE OF FACILITY	ALTERNATIVE 1		ALTERNATIVE 2				ALTERNATIVE 3					
	NO.	AREA (Sq.Ft.)	INDUCTION		REFRESHER		TOTAL	FRENCH		ENGLISH		TOTAL
			NO.	AREA (Sq.Ft.)	NO.	AREA (Sq.Ft.)		NO.	AREA (Sq.Ft.)	NO.	AREA (Sq.Ft.)	
INSTRUCTIONAL SPACE												
CLASSROOM	13	7,800	6	3,600	7	4,200	7,800	4	2,400	10	6,000	8,400
SYNDICATE ROOM	8	1,200	4	600	4	600	1,200	4	600	4	600	1,200
GYMNASIUM	1	8,700	1	8,700	1	8,700	17,400	1	8,700	1	8,700	17,400
WEAPONS RANGE	1	2,700	1	2,700	1	2,700	5,400	1	2,700	1	2,700	5,400
SUB-TOTAL	-	20,400	-	15,600	-	16,200	31,800	-	14,400	-	18,000	32,400
INSTRUCTIONAL SUPPORT												
LIBRARY	1	2,000	1	1,500	1	1,500	3,000	1	1,500	1	1,500	3,000
AUDIO-VISUAL CENTRE	1	600	1	600	1	600	1,200	1	600	1	600	1,200
PRECIS ROOM	1	250	1	250	1	250	500	1	250	1	250	500
CONFERENCE ROOM	2	1,500	1	750	1	750	1,500	1	750	1	750	1,500
AUDITORIUM	1	2,600	1	1,200	1	1,500	2,700	1	900	1	2,000	2,900
SUB-TOTAL	-	6,950	-	4,300	-	4,600	8,900	-	4,000	-	5,100	9,100
ADMINISTRATIVE SPACE												
FACULTY OFFICES	18	1,800	9	900	12	1,200	2,100	8	800	15	1,500	2,300
ADMINISTRATIVE OFFICES	N/A	2,575	N/A	2,065	N/A	2,375	4,440	N/A	2,415	N/A	2,495	4,910
SUB-TOTAL	-	4,375	-	2,965	-	3,575	6,540	-	3,215	-	3,995	7,210
RESIDENTIAL ACCOMMODATION												
KITCHEN	1	1,200	1	1,200	1	1,200	2,400	1	1,200	1	1,200	2,400
DINING/CAFETERIA	1	1,800	1	900	1	1,080	1,980	1	720	1	1,440	2,160
BEDROOM	216	29,900	96	11,520	120	14,400	25,920	72	8,640	168	20,160	28,800
COMMON ROOM	9	4,500	4	2,000	5	2,500	4,500	3	1,500	7	3,500	5,000
SUB-TOTAL	-	33,420	-	15,620	-	19,180	34,800	-	12,060	-	26,300	38,360
TOTAL NET AREA REQUIREMENT	-	65,145	-	38,485	-	43,555	82,040	-	33,675	-	53,395	87,070
TOTAL GROSS AREA REQUIREMENT*	-	104,232	N/A	61,576	-	69,688	131,264	-	53,880	-	85,432	139,312

* BASED ON 1.6 NET TO GROSS RATIO

IDENTIFICATION OF MAN-YEAR NEEDS

ANALYSIS OF MAN-YEAR REQUIREMENTS

	ALTERNATIVE 1	ALTERNATIVE 2			ALTERNATIVE 3		
		INDUCTION	REFRESHER & OTHER	TOTAL	FRENCH	ENGLISH	TOTAL
MANAGEMENT GENERAL							
Director	1	1	1	2	1	1	2
Secretary	1	1	1	2	1	1	2
Sub-total	2	2	2	4	2	2	4
ORGANIZATION AND ADMINISTRATION							
Assistant Director, Admin. Services	1	1	1	2	1	1	2
Secretary	1	1	1	2	1	1	2
Office Services Supervisor	1	1	1	2	1	1	2
General Administrative Clerk/Typist	4	2	3	5	2	3	5
Sub-total	7	5	6	11	5	6	11
HUMAN RESOURCES							
Assistant Director, Security Training	1	1	1	2	1	1	2
Secretary	1	1	1	2	1	1	2
Assistant Director, Professional Training	1	-	1	1	1	1	2
Secretary	1	-	1	1	1	1	2
Assistant Director, Curriculum Development	1	-	1	1	1	1	2
Secretary	1	-	1	1	1	1	2
Supervisor Correctional Officer Training	1	1	1	2	1	1	2
Curriculum Development Specialist	2	-	2	2	1	2	3
Socio-Behavioural Specialist	1	-	1	1	1	1	2
Chief Weapons Training	1	1	1	2	1	1	2
Weapons Trainer	3	1	1	2	1	2	3
General Trainer	12	5	7	12	3	10	13
Physical Education Instructor	2	1	1	2	1	1	2
Self-Defense Instructor	1	1	1	2	1	1	2
Coordinator Media Services	1	1	1	2	1	1	2
Multi-media Technician	2	1	1	2	1	2	3
Librarian	1	1	1	2	1	1	2
Precis Clerk	1	1	1	2	1	1	2
Sub-total	34	16	25	41	20	30	50
FOOD SERVICES*							
Food Services Supervisor	1	1	1	2	1	1	2
Food Services Officer	8	6	6	12	6	6	12
Sub-total	9	7	7	14	7	7	14
ENGINEERING AND ARCHITECTURAL SERVICES *							
Cleaning Supervisor	1	1	1	2	1	1	2
Cleaner	4	2	2	4	2	3	5
Maintenance Officer/Handyman	2	1	1	2	1	2	3
Groundskeeper	1	1	1	2	1	1	2
Sub-total	8	5	5	10	5	7	12
TOTAL MAN-YEAR REQUIREMENT (maximum)	60	35	45	80	39	52	91
TOTAL MAN-YEAR REQUIREMENT (minimum)	43	23	33	56	27	38	65

* Optional in that these services can be contracted out thereby minimizing man-year requirement.

RELOCATION AND TRAVEL COSTS

CONTENTS

	<u>Page</u>
TABLES:	
1 : Average Relocation Cost Per Employee	E-1
2 : Fares Used in Calculation of Travel Costs	E-2
3 : Projected Travel Costs - Induction Training - 1980-1981 (based on Treasury Board travel directive)	E-3
4 : Projected Travel Costs - Induction Training - 1980-1981 (based on waiver of Treasury Board travel directive)	E-4
5 : Projected Travel Costs - Refresher and Other Training - 1980-1981	E-5

Table 1

<u>AVERAGE RELOCATION COST PER EMPLOYEE</u> <u>(High cost centre to high cost centre)</u>	
Real Estate Fees (7% of selling price)	\$ 3,500.00
Legal Fees (purchase and sale)	1,000.00
Non-Accountable Advance	1,000.00
Furniture Shipment	3,000.00
Transportation	500.00
Family Separation (6 months at \$350.00)	2,100.00
Interim Accommodation	1,000.00
Cost of House Hunting	<u>1,000.00</u>
TOTAL	<u>\$13,100.00</u>

FARES USED IN CALCULATION OF TRAVEL COSTS
(ONE WAY-ECONOMY CLASS)

	OTTAWA	MONTREAL	KINGSTON
OTTAWA (NHQ)	-	\$ 30	\$ 9*
MONCTON (Atlantic)	\$ 73	\$ 66	\$ 73 + 9*
MONTREAL (Quebec)	\$ 30	-	\$ 18*
KINGSTON (Ontario)	\$ 9*	\$ 18*	-
WINNIPEG (22% Prairie)	\$116	\$123	\$107 + 12*
SASKATOON (38% Prairie)	\$152	\$159	\$143 + 12*
EDMONTON (40% Prairie)	\$177	\$184	\$167 + 12*
VANCOUVER (Pacific)	\$211	\$217	\$201 + 12*

* Bus fare

PROJECTED TRAVEL COSTS - INDUCTION TRAINING*
1980 - 1981

Table 3

		OTTAWA				MONTREAL				KINGSTON			
		CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-COF	NON-CX	TOTAL
ATLANTIC (Moncton)	max.	\$ 5,694	\$ 2,336	\$ 4,526	\$ 12,556	\$ 5,148	\$ 2,112	\$ 4,092	\$ 11,352	\$ 6,396	\$ 2,624	\$ 5,084	\$ 14,104
	m.l.	4,380	1,752	3,942	10,074	3,960	1,584	3,564	9,108	4,920	1,968	4,428	11,316
	min.	3,066	1,168	3,212	7,446	2,772	1,056	2,904	6,732	3,444	1,312	3,608	8,364
QUEBEC (Montreal)	max.	\$ 13,500	\$ 2,700	\$ 7,080	\$ 23,280	-	-	-	-	\$ 8,100	\$ 2,160	\$ 4,248	\$ 14,508
	m.l.	11,520	2,640	6,180	20,340	-	-	-	-	6,912	1,584	3,708	12,204
	min.	9,540	1,920	5,340	16,800	-	-	-	-	5,724	1,152	3,204	10,084
ONTARIO (Kingston)	max.	\$ 3,024	\$ 432	\$ 1,674	\$ 5,130	\$ 6,048	\$ 864	\$ 3,348	\$ 10,260	-	-	-	-
	m.l.	2,592	288	1,458	4,338	5,184	576	2,916	8,676	-	-	-	-
	min.	2,160	144	1,224	3,528	5,760	288	2,448	8,496	-	-	-	-
PRAIRIE (22%) (Winnipeg)	max.	\$ 6,264	\$ 3,712	\$ 4,640	\$ 14,616	\$ 6,642	\$ 3,936	\$ 4,920	\$ 15,498	\$ 6,426	\$ 3,808	\$ 4,760	\$ 14,994
	m.l.	5,568	2,784	3,944	12,296	5,904	2,952	4,182	13,038	5,712	2,856	4,046	12,614
	min.	4,872	2,784	3,480	11,136	5,166	2,952	3,690	11,808	4,998	2,856	3,570	11,424
PRAIRIE (38%) (Saskatoon)	max.	\$ 14,592	\$ 7,296	\$10,336	\$ 32,224	\$ 15,264	\$ 7,632	\$10,812	\$ 33,708	\$ 14,880	\$ 7,440	\$10,540	\$ 32,860
	m.l.	12,768	6,080	9,120	27,968	13,356	6,360	9,540	29,256	13,020	6,200	9,300	28,520
	min.	10,032	4,864	7,904	22,800	10,494	5,088	8,268	23,850	10,230	4,960	8,060	23,250
PRAIRIE (40%) (Edmonton)	max.	\$ 18,054	\$ 6,496	\$12,744	\$ 39,294	\$ 18,768	\$ 8,832	\$13,248	\$ 40,848	\$ 18,258	\$ 8,592	\$12,888	\$ 39,738
	m.l.	14,868	7,080	11,328	33,276	15,456	7,360	11,776	34,592	15,036	7,160	11,456	33,652
	min.	12,744	5,664	9,912	28,320	13,248	5,888	10,304	29,440	12,888	5,728	10,024	28,640
PACIFIC (Vancouver)	max.	\$120,270	\$10,128	\$56,126	\$186,524	\$123,690	\$10,416	\$57,722	\$191,828	\$121,410	\$10,224	\$56,658	\$188,292
	m.l.	112,674	8,440	52,328	173,442	115,878	8,680	53,816	178,374	113,742	8,520	52,824	175,086
	min.	106,344	5,064	48,530	159,938	109,368	5,208	49,910	164,486	107,352	5,112	48,990	161,454
TOTAL	max.	\$181,398	\$35,100	\$97,126	\$313,624	\$175,560	\$33,792	\$94,142	\$303,494	\$175,470	\$34,848	\$94,178	\$304,496
	m.l.	164,370	29,064	88,300	281,734	159,738	27,512	85,794	273,044	159,342	28,288	85,762	273,392
	min.	148,758	21,608	79,602	249,968	146,808	20,480	77,524	244,812	144,636	21,120	77,456	243,212

max. = maximum m.l. = most likely min. = minimum

* Based on: 3 return trips per CX-COF induction trainee

4 " " CX-LUF " "
1 " " NON-CX " "

PROJECTED TRAVEL COSTS - INDUCTION TRAINING*
1980-1981

Table 4

		OTTAWA				MONTREAL				KINGSTON			
		CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL	CX-COF	CX-LUF	NON-CX	TOTAL
ATLANTIC (Moncton)	max.	\$ 1,898	\$ 584	\$ 4,526	\$ 7,008	\$ 1,716	\$ 528	\$ 4,092	\$ 6,336	\$ 2,132	\$ 656	\$ 5,084	\$ 7,872
	m.l.	1,460	438	3,942	5,840	1,320	396	3,564	5,280	1,640	492	4,428	6,560
	min.	1,022	292	3,212	4,526	924	264	2,904	4,092	1,148	328	3,608	5,084
QUEBEC (Montreal)	max.	\$ 4,500	\$ 900	\$ 7,080	\$ 12,480	\$ -	\$ -	\$ -	\$ -	\$ 2,700	\$ 540	\$ 4,248	\$ 7,488
	m.l.	3,840	660	6,180	10,680	-	-	-	-	2,304	196	3,708	6,408
	min.	3,180	480	5,340	9,000	-	-	-	-	1,908	288	3,204	5,400
ONTARIO (Kingston)	max.	\$ 1,008	\$ 108	\$ 1,674	\$ 2,790	\$ 2,016	\$ 216	\$ 3,348	\$ 5,580	-	-	-	-
	m.l.	864	72	1,458	2,394	1,728	144	2,916	4,788	-	-	-	-
	min.	720	36	1,224	1,980	1,440	72	2,448	3,960	-	-	-	-
PRAIRIE (22%) (Winnipeg)	max.	\$ 2,088	\$ 928	\$ 4,640	\$ 7,656	\$ 2,214	\$ 984	\$ 4,920	\$ 8,118	\$ 2,142	\$ 952	\$ 4,760	\$ 7,854
	m.l.	1,856	696	3,944	6,496	1,968	738	4,182	6,888	1,904	714	4,046	6,664
	min.	812	696	3,480	4,988	1,722	738	3,690	6,150	1,666	714	3,570	5,950
PRAIRIE (38%) (Saskatoon)	max.	\$ 4,864	\$1,824	\$10,336	\$ 17,024	\$ 5,088	\$1,908	\$10,812	\$ 17,808	\$ 4,960	\$1,860	\$10,540	\$ 17,360
	m.l.	4,256	1,520	9,120	14,896	4,452	1,590	9,540	15,582	4,340	1,550	9,300	15,190
	min.	3,344	1,216	7,904	12,464	3,498	1,272	8,268	13,038	3,410	1,240	8,060	12,710
PRAIRIE (40%) (Edmonton)	max.	\$ 6,018	\$2,124	\$12,744	\$ 20,886	\$ 6,256	\$2,208	\$13,248	\$ 21,712	\$ 6,086	\$2,148	\$12,888	\$ 21,122
	m.l.	4,956	1,770	11,328	18,054	5,152	1,840	11,776	18,768	5,012	1,790	11,456	18,258
	min.	4,248	1,416	9,912	15,576	4,416	1,472	10,304	16,192	4,296	1,432	10,024	15,752
PACIFIC (Vancouver)	max.	\$40,090	\$2,532	\$56,126	\$ 98,748	\$41,230	\$2,604	\$57,722	\$101,556	\$40,470	\$2,556	\$56,658	\$ 99,684
	m.l.	37,558	2,110	52,328	91,996	38,626	2,170	53,816	94,612	37,914	2,130	52,824	92,868
	min.	35,448	1,266	48,530	85,244	36,456	1,302	49,910	87,668	35,784	1,278	48,990	86,052
TOTAL	max.	\$60,466	\$9,000	\$97,126	\$166,592	\$58,520	\$8,448	\$94,142	\$161,110	\$58,490	\$8,712	\$94,178	\$161,380
	m.l.	54,790	7,266	88,300	150,356	53,246	6,878	85,794	145,918	53,114	7,072	85,762	145,948
	min.	48,774	5,472	79,602	133,778	48,456	5,120	77,524	131,100	48,212	5,280	77,456	130,948

max. = maximum m.l. = most likely min. = minimum

* Based on assumption that right to TB travel directive - return home every 3rd week is waived as condition of employment.

PROJECTED TRAVEL COSTS - REFRESHER AND OTHER TRAINING
1980 - 1981

Table 5

	OTTAWA				MONTREAL				KINGSTON			
	CX-COF	CX-LUF	ALL OTHER	TOTAL	CX-COF	CX-LUF	ALL OTHER	TOTAL	CX-COF	CX-LUF	ALL OTHER	TOTAL
NHQ Ottawa	-	-	-	-	-	-	\$ 2,940	\$ 2,940	-	-	\$ 882	\$ 882
ATLANTIC Moncton	\$ 13,578	\$ 3,650	\$ 11,680	\$ 28,908	\$ 12,276	\$ 3,300	10,560	26,136	\$ 15,252	\$ 4,100	13,120	32,472
QUEBEC Montreal	22,080	7,320	17,580	46,980	-	-	-	-	\$ 13,248	\$ 4,392	\$ 10,548	\$ 28,188
ONTARIO Kingston	4,770	972	4,032	9,774	9,540	1,944	8,064	19,548	-	-	-	-
PRAIRIE (22%) Winnipeg	9,744	3,944	9,512	23,200	10,332	4,182	10,086	24,600	9,996	4,046	9,758	23,800
PRAIRIE (38%) Saskatoon	22,192	9,120	21,584	52,896	23,214	9,540	22,578	55,352	22,630	9,300	22,010	53,940
PRAIRIE (40%) Edmonton	27,258	10,974	26,550	64,782	28,336	11,408	27,600	67,344	27,566	11,098	26,850	65,514
PACIFIC Vancouver	79,758	21,100	70,052	170,910	82,026	21,700	72,044	175,770	80,514	21,300	70,716	172,530
TOTAL	\$179,380	\$57,080	\$160,990	\$397,450	\$165,724	\$52,074	\$153,872	\$371,670	\$169,206	\$54,236	\$153,884	\$377,326

DETAILED FINANCIAL CALCULATIONS

CONTENTS

	<u>Page</u>
DETAILED FINANCIAL CALCULATIONS FOR ALTERNATIVES:	
1 : One National Correctional Staff College	F- 1
2 : Induction Training	F- 5
2 : Refresher and Other Training	F- 9
3 : French Training	F-13
3 : English Training	F-17
4 : Regional Staff College Operation - Total of Five Colleges	F-21

DETAILED FINANCIAL CALCULATIONS
Alternative 1 - One National Correctional Staff College

CAPITAL COSTS

Building Costs

Construction (104,232 sq.ft. @ \$60)	-	\$6,253,920
Architectural (10% of construction)	-	625,392
Kitchen Equipment	-	160,000
Furnishings (\$300 per bedroom)	-	64,800
Contingency (5% of above)	-	<u>355,206</u>
Total	-	\$7,459,318

Renovation or Alteration Costs

	<u>KINGSTON</u>	<u>LAVAL</u>
Renovations	\$ 417,500	\$ 570,180
Misc. Repairs	25,000	25,000
Additional Construction	<u>3,146,400</u>	<u>3,010,200</u>
Sub-Total Construction	\$3,588,900	\$3,605,380
Architectural Fees (10% construction)	358,890	360,538
Kitchen Equipment	50,000	50,000
Office & Classroom Furniture	100,000	75,000
Bedroom Furniture (\$300 per room)	64,800	64,800
Contingencies		
10% Renovation	44,250	59,518
5% New Construction	<u>157,320</u>	<u>178,027</u>
Total	<u>\$4,364,160</u>	<u>\$4,393,263</u>

Other Costs (Equipment)

Not applicable.

<u>Total Capital Costs (highest capital cost)</u>	-	<u>\$7,459,318</u>
---	---	--------------------

RELOCATION COST

43 (man-years) x 70% = 30.1	
30 (man-years) x \$13,100	=
	\$ <u>393,000</u>

OPERATING AND MAINTENANCE COSTS

Site Related Costs (maximum resource utilization)

Security	-	\$ 70,500
Utilities	-	162,000
Other Services	-	50,000
Repairs and Maintenance	-	15,000
Operating and Maintenance Supplies	-	15,000
Food (Rations)	-	150,000
10% Contingency	-	<u>46,250</u>
Total	-	\$ 508,750

Site Related Costs (minimum resource utilization)

Security	-	\$ 70,500
Utilities	-	162,000
Other Services	-	25,000
Food and Maid Service Contract		
- 42,951 training days @ \$13.75	-	590,576
Building Maintenance and Cleaning Contract		
- 65,145 sq.ft. @ \$1 per sq.ft.	-	65,145
10% Contingency	-	<u>91,322</u>
Total	-	\$1,004,543

Operations Related Costs

Vehicle Repairs	-	\$ 2,000
Training Supplies	-	305,450
Administrative Supplies	-	<u>90,000</u>
Total		\$ 397,450

Salaries (maximum resource utilization)

Management General	2	\$ 46,000
Organization Administration	7	97,000
Human Resources	34	706,000
Food Services	9	138,000
Engineering and Architecture Services	<u>8</u>	<u>118,000</u>
Total	60	\$1,105,000

Salaries (minimum resource utilization)

Management General	2	\$ 46,000
Organization Administration	7	97,000
Human Resources	<u>34</u>	<u>706,000</u>
Total	43	\$ 849,000

Travel Costs

	<u>Maximum (based on TB travel directive)</u>	<u>Minimum (waive TB travel directive)</u>
Induction trainees	\$273,392	\$145,948
Refresher & Other trainees	<u>377,326</u>	<u>377,326</u>
Total	\$650,718	\$523,274

(refer to Appendix E, page 63 for additional travel cost calculations for various locations)

Total Operating and Maintenance Costs

(Maximum resource utilization & max. travel costs)	-	<u>\$2,661,918</u>
(Minimum resource utilization & max. travel costs)	-	<u>\$2,901,711</u>

UNIT COST

(Maximum resource utilization & max. travel costs)

$$\begin{aligned} \text{Unit Cost} &= \frac{\text{Total Operating and Maintenance Costs}}{\text{Training Days}} \\ &= \frac{\$2,661,918}{42,951} \\ &= \underline{\$61.98} \end{aligned}$$

(Minimum resource utilization & max. travel costs)

$$\begin{aligned} \text{Unit Cost} &= \frac{\$2,901,711}{42,951} \\ &= \underline{\$67.56} \end{aligned}$$

DETAILED FINANCIAL CALCULATIONS
Alternative 2 - Induction Training

CAPITAL COSTS

Building Costs

Construction (61,576 sq.ft. @ \$60)	-	\$3,694,560
Architectural (10% of construction)	-	369,456
Kitchen equipment	-	160,000
Furnishings (\$300 per bedroom)	-	28,800
Contingency (5% of above)	-	<u>212,641</u>
Total	-	\$4,465,457

Renovation or Alteration Costs

	<u>KINGSTON</u>	<u>LAVAL</u>
Renovations	\$ 428,400	\$ 469,760
Misc. Repairs	25,000	25,000
Additional Construction	<u>1,365,500</u>	<u>1,856,660</u>
Sub-Total Construction	\$1,818,900	\$2,351,420
Architectural Fees (10% construction)	181,890	235,142
Kitchen Equipment	25,000	25,000
Office & Classroom Furniture	75,000	75,000
Bedroom Furniture (\$300 per room)	28,800	28,800
Contingencies		
10% Renovation	45,340	49,476
5% New Construction	<u>83,810</u>	<u>111,030</u>
	<u>\$2,258,740</u>	<u>\$2,875,868</u>

Other Costs (Equipment)

Not applicable.

<u>Total Capital Costs</u> (highest capital cost)	-	<u>\$4,465,457</u>
---	---	--------------------

RELOCATION COST

23 (man-years) x 70% = 16.1	
16 (man-years) x \$13,100	=
	<u>\$ 209,600</u>

OPERATING AND MAINTENANCE COSTS

Site Relcated Costs (maximum resource utilization)

Security	-	\$ 70,500	
Utilities	-	81,000	
Other Services	-	50,000	
Repairs and Maintenance	-	15,000	
Operating and Maintenance Supplies	-	15,000	
Food (Rations)	-	60,000	
10% Contingency	-	<u>29,150</u>	
Total	-		\$ 320,650

Site Related Costs (minimum resource utilization)

Security	-	\$ 70,500	
Utilities	-	81,000	
Other Services	-	25,000	
Food and Maid Service Contract			
- 17,415 training days @ \$13.75	-	239,456	
Building Maintenance & Cleaning Contract			
- 38,485 sq.ft. @ \$1 per sq.ft.	-	38,485	
10% Contingency	-	<u>45,444</u>	
Total	-		\$ 499,885

Operations Related Costs

Vehicle Repairs	-	\$ 2,000	
Training Supplies	-	183,700	
Administrative Supplies	-	<u>30,000</u>	
Total			\$ 215,700

Salaries Cost (maximum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	73,000	
Human Resources	16	330,000	
Food Services	7	108,000	
Engineering & Architecture Services	<u>5</u>	<u>74,000</u>	
Total	35		\$ 631,000

Salaries Cost (minimum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	73,000	
Human Resources	<u>16</u>	<u>330,000</u>	
Total	23		\$ 449,000

Travel Costs

	<u>Maximum (based on TB travel directive)</u>	<u>Minimum (waive TB travel directive)</u>
Induction trainees	\$273,392	\$145,948

(refer to Appendix E, page 63 for additional travel cost calculations for various locations)

Total Operating and Maintenance Costs

(Maximum resource utilization & max. travel cost)	-	<u>\$1,440,742</u>
(Minimum resource utilization & max. travel cost)	-	<u>\$1,437,977</u>

UNIT COST

(Maximum resource utilization & max. travel costs)

$$\begin{aligned}
 \text{Unit Cost} &= \frac{\text{Total Operating and Maintenance Costs}}{\text{Training Days}} \\
 &= \frac{\$1,440,742}{17,415} \\
 &= \underline{\$82.73}
 \end{aligned}$$

(Minimum resource utilization & max. travel cost)

$$\begin{aligned} \text{Unit Cost} &= \frac{\$1,437,977}{17,415} \\ &= \underline{\$82.57} \end{aligned}$$

DETAILED FINANCIAL CALCULATIONS
Alternative 2 - Refresher and Other Training

CAPITAL COSTS

Building Cost

Construction (69,688 sq.ft. @ \$60)	-	\$4,181,280
Architecture (10% of construction)	-	418,128
Kitchen Equipment	-	160,000
Furnishings (\$300 per bedroom)	-	36,000
Contingency (5% of above)	-	<u>239,771</u>
Total	-	\$5,035,179

Renovation or Alteration Costs

	<u>KINGSTON</u>	<u>LAVAL</u>
Renovations	\$ 325,200	\$ 426,404
Mis. Repairs	25,000	25,000
Additional Construction	<u>1,593,000</u>	<u>1,581,300</u>
Sub-Total Construction	\$1,943,200	\$2,032,704
Architectural Fees (10% construction)	194,320	203,270
Kitchen Equipment	25,000	25,000
Office & Classroom Furniture	75,000	75,000
Bedroom Furniture (\$300 per room)	36,000	36,000
Contingencies		
10% Renovations	35,020	42,640
5% New Construction	<u>96,166</u>	<u>79,065</u>
Total	<u>\$2,404,706</u>	<u>\$2,493,679</u>

Other Costs (Equipment)

Not applicable

Total Capital Costs (highest capital cost) - \$5,035,179

RELOCATION COST

33 (man-years) x 70% = 23.1		
23 (man-years) x \$13,100	=	<u>\$ 301,300</u>

OPERATING AND MAINTENANCE COSTS

Site Related Costs (maximum resource utilization)

Security	-	\$ 70,500	
Utilities	-	133,536	
Other Services	-	50,000	
Repairs and Maintenance	-	15,000	
Operating and Maintenance Supplies	-	15,000	
Food (Rations)	-	90,000	
10% Contingency	-	<u>37,404</u>	
Total	-		\$ 411,440

Site Related Costs (minimum resource utilization)

Security	-	\$ 70,500	
Utilities	-	108,000	
Other Services	-	25,000	
Food and Maid Service Contract			
- 25,536 training days @ \$13.75/ training day)	-	351,320	
Building Maintenance and Cleaning Contract			
-(43,555 sq.ft. @ \$1 per sq.ft.0	-	43,555	
10% Contingency	-	<u>59,838</u>	
Total	-		\$ 658,213

Operations Related Costs

Vehicle Repairs	-	\$ 2,000	
Training Supplies	-	121,750	
Administrative Supplies	-	<u>60,000</u>	
Total			\$ 183,750

Salaries Cost (maximum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	6	85,000	
Human Resources	25	513,000	
Food Services	7	108,000	
Engineering and Architecture Services	<u>5</u>	<u>74,000</u>	
Total	45		\$826,000

Salaries Cost (minimum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	6	85,000	
Human Resources	<u>25</u>	<u>513,000</u>	
Total	33		\$644,000

Travel Cost - \$377,326

(refer to Appendix E, page 63 for additional travel cost calculations for various locations)

Total Operating and Maintenance Costs

(Maximum resource utilization & max. travel cost)	-	<u>\$1,798,516</u>
(Minimum resource utilization & max. travel cost)	-	<u>\$1,863,289</u>

UNIT COST

(Maximum resource utilization & max. travel cost)

$$\begin{aligned}
 \text{Unit Cost} &= \frac{\text{Total Operating and Maintenance Costs}}{\text{Training Days}} \\
 &= \frac{\$1,798,516}{25,536} \\
 &= \underline{\$70.43}
 \end{aligned}$$

(Minimum resource utilization & max. travel cost)

$$\text{Unit Cost} = \frac{\$1,863,289}{25,536}$$

$$= \underline{\$72.97}$$

DETAILED FINANCIAL CALCULATIONS
Alternative 3 - French Training

CAPITAL COSTS

Building Cost

Construction (53,880 sq.ft. @ \$60)	-	\$3,232,800	
Architecture (10% of construction)	-	323,280	
Kitchen Equipment	-	160,000	
Furnishings (\$300 per bedroom)	-	21,600	
Contingency	-	<u>186,884</u>	
Total	-		\$3,924,564

Renovation or Alteration Cost

	<u>KINGSTON</u>	<u>LAVAL</u>
Renovations		\$ 426,190
Misc. Repairs		25,000
Additional Construction		<u>1,239,300</u>
Sub-Total Construction		\$1,690,490
Architectural Fees (10% construction)	not feasible to	169,049
Kitchen Equipment	include	25,000
Office & Classroom Furniture		75,000
Bedroom Furniture (\$300 per room)		21,600
Contingencies		
10% Renovation		45,119
5% New Construction		<u>76,497</u>
Total		<u>\$2,102,755</u>

Other Costs (Equipment)

Not applicable.

Total Capital Costs (highest capital cost) \$3,924,564

RELOCATION COST

Not applicable.

OPERATING AND MAINTENANCE COSTS

Site Related Costs (maximum resource utilization)

Security	-	\$ 70,500	
Utilities	-	54,000	
Other Services	-	50,000	
Repairs and Maintenance	-	15,000	
Operating and Maintenance Supplies	-	15,000	
Food (Rations)	-	60,000	
10% Contingency	-	<u>26,450</u>	
Total	-		\$290,950

Site Related Costs (minimum resource utilization)

Security	-	\$ 70,500	
Utilities	-	54,000	
Other Services	-	25,000	
Food and Maid Service Contract - 13,092 training days @ \$13.75/ training day)	-	180,015	
Building Maintenance and Cleaning Contract - 33,675 sq.ft. @ \$1 per sq.ft.)	-	33,675	
10% Contingency	-	<u>36,319</u>	
Total	-		\$399,509

Operations Related Cost

Vehicle Repairs	-	\$ 2,000	
Training Supplies	-	87,500	
Administrative Supplies	-	<u>30,000</u>	
Total	-		\$119,500

Salaries Cost (maximum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	73,000	
Human Resources	20	409,000	
Food Services	7	108,000	
Engineering and Architecture Services	<u>5</u>	<u>74,000</u>	
	39		\$710,000

Salaries Cost (minimum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	73,000	
Human Resources	<u>20</u>	<u>409,000</u>	
Total	27		\$528,000

Travel Cost

Not applicable

Total Operating and Maintenance Cost

(Maximum resource utilization)	-	<u>\$1,120,450</u>
(Minimum resource utilization)	-	<u>\$1,047,009</u>

UNIT COST

(Maximum Resource utilization)

$$\begin{aligned} \text{Unit Cost} &= \frac{\text{Total Operating and Maintenance Cost}}{\text{Total Training Days}} \\ &= \frac{\$1,120,450}{13,092} \\ &= \underline{\$85.58} \end{aligned}$$

(Minimum resource utilization)

$$\begin{aligned} \text{Unit Cost} &= \frac{\$1,047,009}{13,092} \\ &= \underline{\$79.97} \end{aligned}$$

DETAILED FINANCIAL CALCULATIONS
Alternative 3 - English Training

CAPITAL COST

Building Cost

Construction (85,432 sq.ft. @ \$60)	-	\$5,125,920	
Architecture (10% of construction)	-	512,592	
Kitchen Equipment	-	160,000	
Furnishings (\$300 per bedroom)	-	50,400	
Contingency (5% of above)	-	<u>292,445</u>	
Total	-		\$6,141,357

Renovation or Alteration Costs

	<u>KINGSTON</u>	<u>LAVAL</u>
Renovations	\$ 328,100	↑ not feasible to include ↓
Misc. Repairs	25,000	
Additional Construction	<u>2,311,800</u>	
Sub-Total Construction	\$2,664,900	
Architectural Fees (10% Construction)	266,490	
Kitchen Equipment	50,000	
Office & Classroom Furniture	75,000	
Bedroom Furniture (\$300 per room)	50,400	
Contingencies		
10% Renovation	35,310	
5% New Construction	<u>137,685</u>	
Total	<u>\$3,279,785</u>	

Other Costs (Equipment)

Not applicable.

Total Capital Cost (highest capital cost)	-	<u>\$6,141,357</u>
---	---	--------------------

RELOCATION COST

38 (man-years) x 70% = 26.6		
27 (man-years) x \$13,100	=	<u>\$ 353,700</u>

OPERATING AND MAINTENANCE COSTS

Site Related Costs (maximum resource utilization)

Security	-	\$ 70,500	
Utilities	-	135,000	
Other Services	-	50,000	
Repairs and Maintenance	-	15,000	
Operating and Maintenance Supplies	-	15,000	
Food (Rations)	-	120,000	
10% Contingency	-	<u>40,550</u>	
Total	-		\$ 446,050

Site Related Costs (minimum resource utilization)

Security	-	\$ 70,500	
Utilities	-	135,000	
Other Services	-	25,000	
Food and Maid Service Contract - (29,859 training days @ \$13.75/ training day)	-	410,561	
Building Maintenance and Cleaning Contract - (53,395 sq.ft. @ \$1 per sq.ft.)	-	53,395	
10% Contingency	-	<u>69,446</u>	
Total	-		\$ 763,902

Operations Related Costs

Vehicle Repairs	-	\$ 2,000	
Training Supplies	-	197,222	
Administrative Supplies	-	<u>60,000</u>	
Total	-		\$ 259,222

Salaries Cost (maximum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	130,000	
Human Resources	31	569,000	
Food Services	7	108,000	
Engineering and Architecture Services	<u>7</u>	<u>104,000</u>	
Total	52		\$ 957,000

Salaries Cost (minimum resource utilization)

Management General	2	\$ 46,000	
Organization Administration	5	130,000	
Human Resources	<u>31</u>	<u>569,000</u>	
Total	38		\$ 745,000

Travel Cost

	<u>Maximum (based on TB travel directive)</u>	<u>Minimum (waive of TB travel directive)</u>
Induction trainees	\$261,188	\$139,540
Refresher trainees	<u>349,138</u>	<u>349,138</u>
Total	<u>\$610,326</u>	<u>\$488,678</u>

(refer to Appendix E, page 63 for additional travel cost calculations for various locations).

Total Operating and Maintenance Costs

(Maximum resource utilization & max. travel cost)	-	<u>\$2,272,598</u>
(Minimum resource utilization & max. travel cost)	-	<u>\$2,378,450</u>

UNIT COST

(Maximum resource utilization & max. travel cost)

$$\begin{aligned} \text{Unit Cost} &= \frac{\text{Total Operating and Maintenance Costs}}{\text{Total Training Days}} \\ &= \frac{\$2,272,598}{29,859} \\ &= \underline{\$76.11} \end{aligned}$$

(Minimum resource utilization & max. travel cost)

$$\begin{aligned} &= \frac{\$2,378,450}{29,859} \\ &= \underline{\$79.66} \end{aligned}$$

DETAILED FINANCIAL CALCULATIONS
 REGIONAL STAFF COLLEGE OPERATION
 Total of Five Colleges
 (Based on 1979-1980 Main Estimates)

CAPITAL COST

Building Costs

Not applicable.

Renovation or Alteration Costs

Not applicable. There are a number of proposals for upgrading and enlarging current facilities, but as these have not yet been approved, the associated costs are not included in this report.

Other Costs (Equipment)

Atlantic	-	\$ 2,200	
Quebec	-	18,860	
Ontario	-	18,560	
Prairie	-	24,813	
Pacific	-	-	
Total	-	-	\$ 64,433

Total Capital Costs \$ 64,433

RELOCATION COST

Not applicable. The assumption is made that each of the 5 colleges will remain at their current site.

OPERATING AND MAINTENANCE COSTS

Site Related Costs

Security	-	\$ 200,318
Utilities	-	87,698
Other Services	-	27,020
Repairs and Maintenance	-	30,486

Site Related (cont't.)

Operating and Maintenance Supplies	-	\$ 144,677	
Institutional Services	-	59,380	
Food (Rations)	-	256,409	
Rent	-	416,564	
Casual or Contract Labour	-	<u>440,813</u>	
Total	-		\$1,663,365

Operations Related Costs

Vehicle Repairs	-	\$ 8,998	
Training Supplies	-	260,686	
Administrative Supplies	-	102,315	
Staff Travel and Benefits	-	<u>98,254</u>	
Total	-		\$ 470,253

Salaries Cost

Management General	9	\$ 187,240	
Organization Administration	18	263,091	
Human Resources	66	1,390,769	
Food Services	15	219,925	
Engineering and Architecture Services	<u>9</u>	<u>124,861</u>	
Total	117		\$2,185,886

Travel Cost (applies only to Prairie Region)

(Based on most likely 1980-81 student population projections and current economy air fares)

Induction CX-COF (travel as per travel directive)

Winnipeg to Edmonton	8 x 3 x \$180 =	\$ 4,320
Saskatoon to Edmonton	14 x 3 x \$108 =	4,536
Calgary to Edmonton	7 x 3 x \$ 60 =	<u>1,260</u>
		\$ 10,116

Travel Cost (cont'd.)

Induction CX-LUF

Winnipeg to Edmonton	3 x 4 x \$180	=	\$ 2,160
Saskatoon to Edmonton	5 x 4 x \$108	=	2,160
Calgary to Edmonton	3 x 4 x \$ 60	=	<u>720</u>
			\$ 5,040

Induction NON-CX

Winnipeg to Edmonton	17 x 1 x \$180	=	\$ 3,060
Saskatoon to Edmonton	30 x 1 x \$108	=	3,240
Calgary to Edmonton	16 x 1 x \$ 60	=	<u>960</u>
			\$7,260

Refresher and Other

Winnipeg to Edmonton	101 x 1 x \$180	=	\$18,180
Saskatoon to Edmonton	174 x 1 x \$108	=	18,792
Calgary to Edmonton	91 x 1 x \$ 60	=	<u>5,460</u>
			\$42,432

Total Travel Cost - Prairie Region
(as per travel directive) - \$ 64,848

Induction CX-COF (waive of travel directive)

Winnipeg to Edmonton	8 x 1 x \$180	=	\$ 1,440
Saskatoon to Edmonton	14 x 1 x \$108	=	1,512
Calgary to Edmonton	7 x 1 x \$ 60	=	<u>420</u>
			\$ 3,372

Induction CX-LUF

Winnipeg to Edmonton	3 x 1 x \$180	=	\$ 540
Saskatoon to Edmonton	5 x 1 x \$108	=	540
Calgary to Edmonton	3 x 1 x \$ 60	=	<u>180</u>
			\$ 1,260

Induction NON-CX (as in preceding page) = \$ 7,260

Refresher and Other (as in preceding page) = \$42,432

Total Travel Cost - Prairie Region
(waive of travel directive) - \$ 54,324

Total Operating and Maintenance Cost

With maximum travel cost - \$4,384,352

With minimum travel cost - \$4,373,828

UNIT COST

Unit Cost = $\frac{\text{Total Operating and Maintenance Costs}}{\text{Total Training Days}}$

= $\frac{\$4,384,352}{42,951}$

= \$102.08 (with maximum travel cost)

Unit Cost = $\frac{\$4,373,828}{42,951}$

= \$101.83 (with minimum travel cost)

SOL GEN CANADA LIB/BIBLIO



0000017088

Storage

450-1



