PROGRAM REVIEW REPORT

on the

COMMERCIAL TRANSPORT VEHICLE MECHANIC/TECHNICIAN PROGRAM

JANUARY, 1997

EXECUTIVE SUMMARY

The Commercial Transport Technician Program Review Committee was impressed by the instructional quality of the program, by the strong links it has with industry, and by the success rates of its graduates in finding employment.

However, the critical challenge facing the Commercial Transport Technician Program is to fill its Trade Entry Level course on a consistent basis. Over the past five year, enrolments in this course have fluctuated from a high of 100% in 1992 to a low of 56% in 1996. A strategy of clarifying the program's identity, liaising more effectively with the academic advisors, advertising in a timely manner, and visiting high schools regularly is recommended. In addition, serious thought should be given to adjusting the program format from fixed to continuous intake. Reconstitution of the Advisory Committee may also provide the program with a promotional shot in the arm.

Other concerns dealt with were the inaccuracy of the FTE program profile and the distortions consequently caused in reported utilization rates; the eternal problem of obsolete equipment, not just in the CTT program but in the whole Applied Industrial Technology Division; the reduction of shop space in the new AIT facility; and adjustments that the CTT instructors should make to the curriculum in terms of computer skills, customer relations and report writing instruction.

COMMERCIAL TRANSPORT VEHICLE MECHANIC/TECHNICIAN PROGRAM REVIEW

TABLE OF CONTENTS

COMMERCIAL TRANSPORT VEHICLE MECHANIC/TECHNICIAN PROGRAM EVALUATION COMMITTEE MEMBERS

CHAIR	**Fred Cunningham, Instructor, College Prep.**
ASSISTANT CHAIR	**Peter Basson, Instructor, Electrical Trades (AITD)**
EXTERNAL REP.	**Peter Saruga, Service Manager Peterbilt Trucks, Kamloops, B.C. Member of CTT Advisory Committee**
RESOURCE PERSON	**Gordon Tordoff, Chairperson, Mechanical Trades**
DIVISIONAL DEAN	**Ralph Finch, Dean, AITD**
REVIEW CO-ORDINATOR	**Alastair Watt, Associate Director, Institutional Research & Planning**
GRAPHICS & ANALYSIS	**Heather Shand Research Analyst**
DATA ENTRY	**Liv Andrew Institutional Research Clerk**

INTRODUCTION

The review of the Commercial Transport Technician (CTT) Program was begun on May 17, 1996. A planning meeting between the Commercial Transport faculty and A. Watt (Associate Director, Institutional Research and Planning) was held on June 17 to discuss program review procedures and questionnaire design, with a further meeting held on July 15 to refine and finalize the questionnaire design.

Using student lists generated from Colleague (UCC's student information system), the Office of Institutional Research and Planning sent questionnaires to former Commercial Transport Technician trade entry and apprentice students on July 26. Employer and advisory committee surveys (with lists obtained from the program faculty) were mailed on August 1, and Commercial Transport faculty surveys were sent out on August 26.

A second mailing was initiated on August 23 and sent to former students, members of the advisory committee and employers who had not returned their questionnaire to date. Telephone communication commenced on September 12, contacting non-responding former students until September 20. Employers and members of the advisory committee were similarly contacted between September 23 and 26.

Current CTT students at the apprenticeship and trade entry levels were surveyed on October 23, November 4 and November 6 respectively. The cut-off date for all responses was November 6, and the Commercial Transport Technician Evaluation Committee met on December 5-6 to analyze the data and formulate its report on the program.

BACKGROUND

Commercial Transport Technician training had its beginnings in 1989 when a Commercial Transport Co-op Program was started in response to industry's need for more specialized training than was available in Heavy Duty Mechanics programs. The Co-op format entailed students taking the first two levels of training, then a work-term, and then returning to school for the last two levels of training. Each of the three periods lasted eight months. But many students were hired on to a real apprenticeship during the work term, with the result that only five or six students were returning to school. In 1992, it was decided to discontinue the Co-op format and go to a one-year program offering ELTT, LEVEL 1 and LEVEL 2 training along with some instruction in electrical. To save money on instructor relief, the program was shortened to 10 months (nine months' instruction and a one-month practicum). Included in this present format is ELTT, LEVEL 1, and selected areas of all other levels.

The FTE count for Commercial Transport was originally intended for two overlapping classes of 16 students each, but as the format changed the FTE count did not change accordingly. Thus, though the maximum class size is 16, the "official" FTE count is 24 so that when the program had 12 students it appeared that it only had a 50% instead of a 75% utilization rate.

The Commercial Transport Technician Entry Level program is the prerequisite for anyone entering into an apprenticeship as a Commercial Transport Vehicle Mechanic (Technician). Anyone not taking an ELTT course has to challenge an Entry Level exam to determine if he has the skills required to start in the trade. The Commercial Transport Technician field is in the process of receiving compulsory certification, which means that anyone entering this trade has to be a journey-person or registered in an apprenticeship.

Demand has fluctuated from year to year partly because many high schools confuse Commercial Transport with Heavy Duty Mechanics, and partly because of ill-timed advertising of the CTT program. Demand for the CTT program is expected to increase steadily due to ageing of the present workforce (average age of mechanics is 54-55 years) and the move toward compulsory certification in the trucking industry. Also, the shop labour rates are so high that most companies cannot afford the time to teach new employees all of the ELTT material that they should know so they are requesting that prospective employees take ELTT training.

The program leads into an apprenticeship in CT mechanics, but can also be used as preparation for apprenticeship in Trailer Mechanics, Refrigeration Mechanics (trailer) and jobs such as warranty writer and service writer.

The CTT program has experienced increasing donations and graduate hirings from and by industry, and this should continue as more companies become aware of the program. On the other hand, equipment currency is a perennial challenge, as are fluctuating enrolments at Entry Level over the last six years. Shop and classroom space will be reduced with the move to the new Applied Industrial Technology building, and the possibility of re-direction of provincial funding to private institutions and of alterations to apprenticeship funding constitute threats to the program.

ADMISSIONS DATA AND PERFORMANCE STATISTICS

Admissions Requirements:

a) Educational Requirements

1) BC Grade 10, but Grade 12 strongly recommended, or mature student status;
2) Successful completion of CAT 19 test.

b) General Requirements

1) Good health;
2) Mechanical aptitude;
3) Must have safety boots and glasses;
4) Interview with Program Coordinator.

Program Capacity:

Sixteen students per intake at Entry Level; 16 per intake for apprenticeship classes. Apprenticeship classes last for six weeks each, except for Level 4, which lasts eight weeks.

Program Demand:

Commercial Transport Trade Entry

	# Admitted	Enrolled	Wait listed	Incomplete/Denied	Total Appl's
Sept 1992	16	12	0	6	22
" 1993	17	12	0	5	22
" 1994	13	12	0	2	15
" 1995	18	16	0	5	23
" 1996	11	10	0	1	12
	75	62	0	19	94

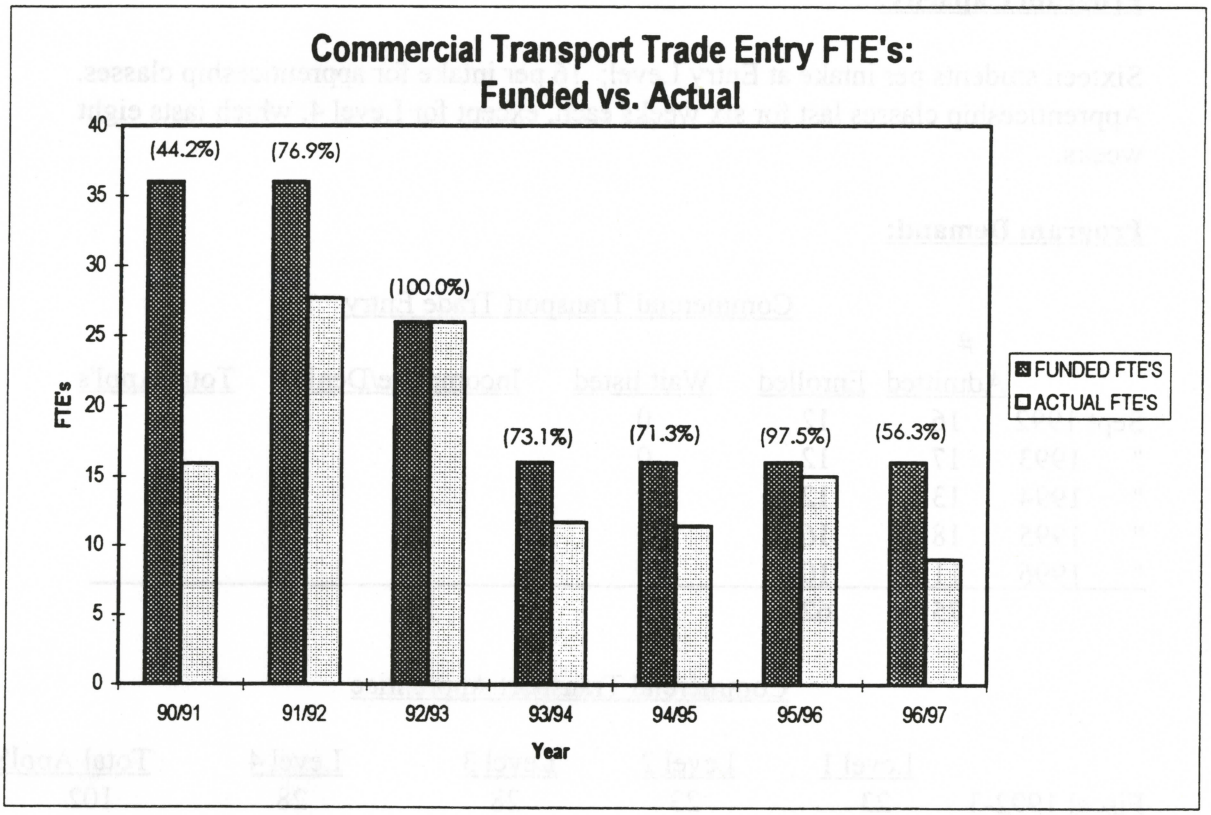
Commercial Transport Apprentice

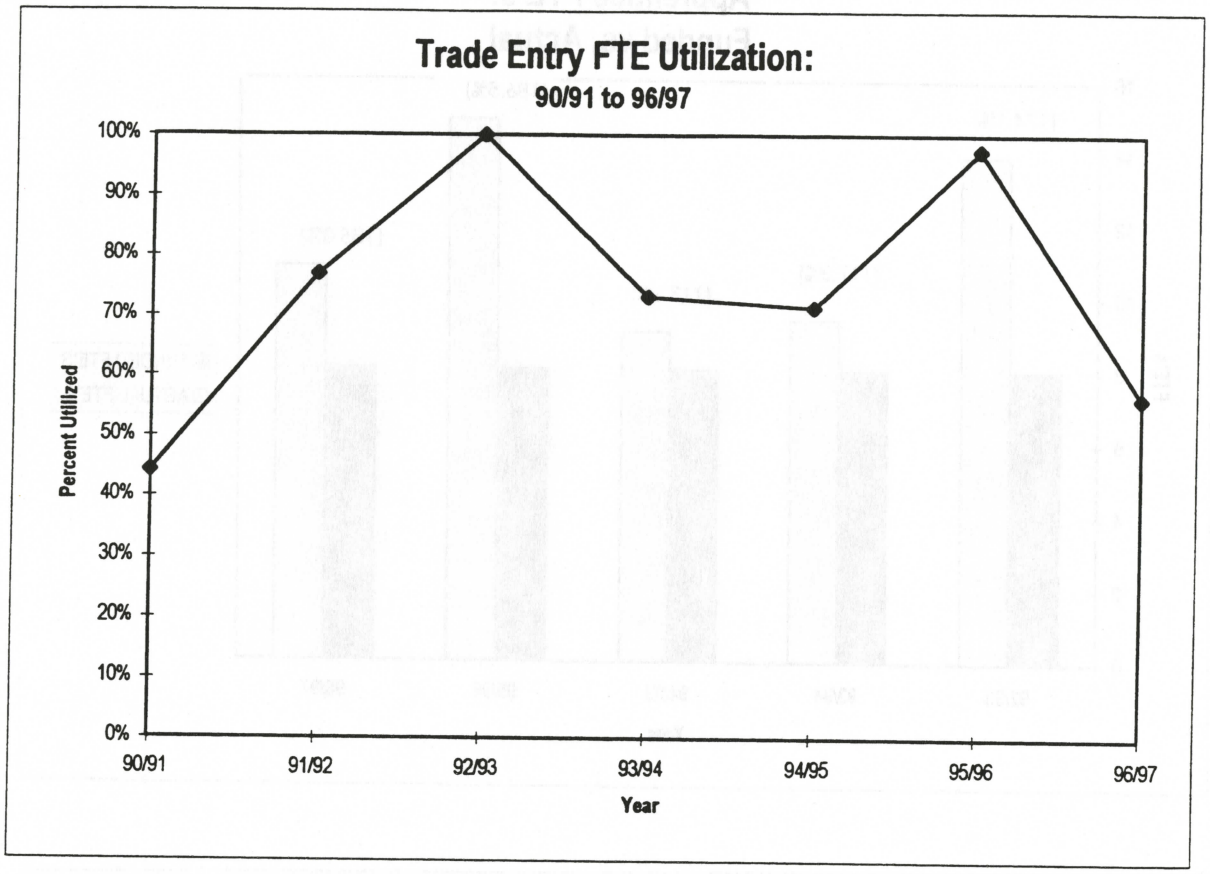
	Level 1	Level 2	Level 3	Level 4	Total Appl's
Fiscal 1992-3	23	23	28	28	102
" 1993-4	24	23	28	15	90
" 1994-5	15	16	12	22	65
" 1995-6	30	30	30	22	112
" 1996-7	30	21	30	16	97
	122	113	128	103	466

Commercial Transport Program Utilization Rates: 1990-1996

Trade Entry:

	1990	1991	1992	1993	1994	1995	1996
Funded FTE:	36.0	36.0	26.0	24.0 (16.0)	24.0 (16.0)	24.0 (16.0)	24.0 (16.0)
Actual FTE:	15.9	27.7	26.0	11.7	11.4	15.6	9.0 (est)
Utilization Rate:	44.2	76.9	100.0	48.8 (73.1)	47.5 (71.25)	65.0 (97.5)	37.5 (56.25)

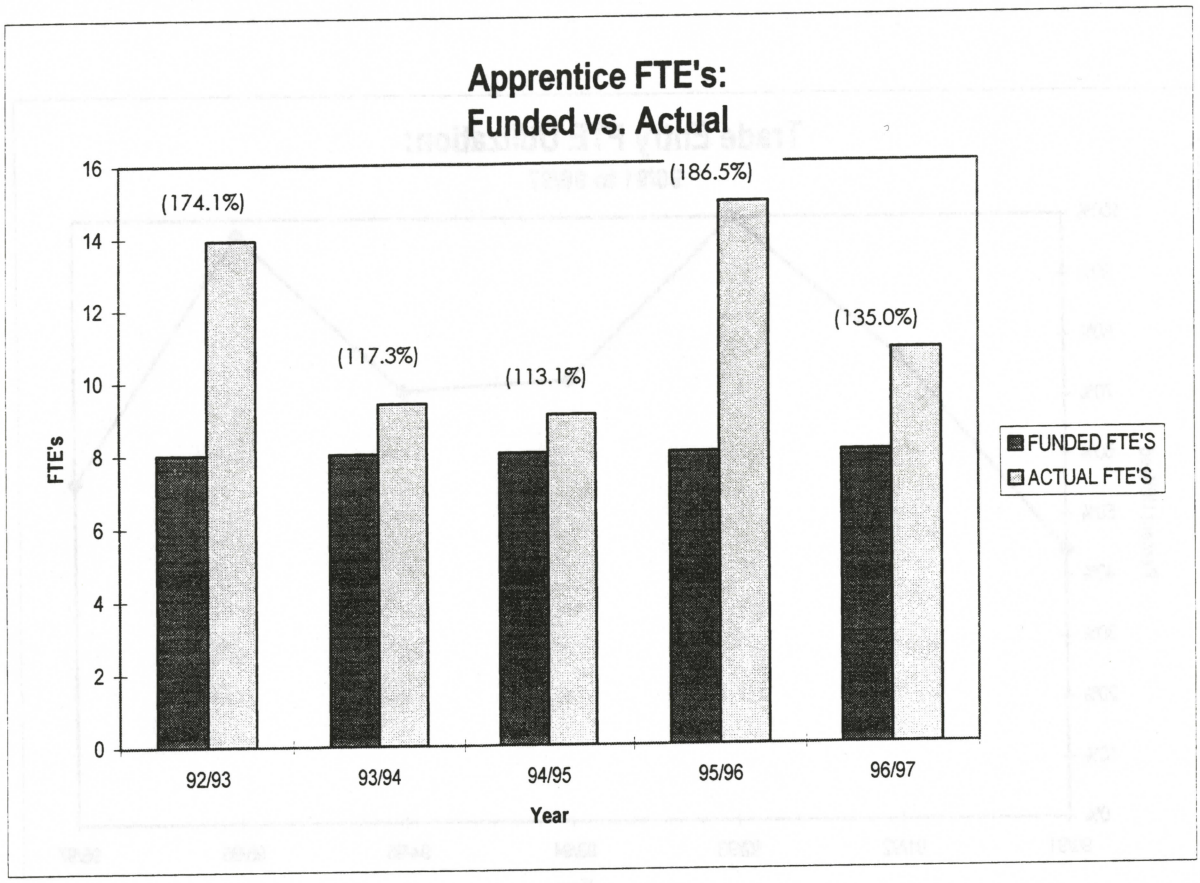


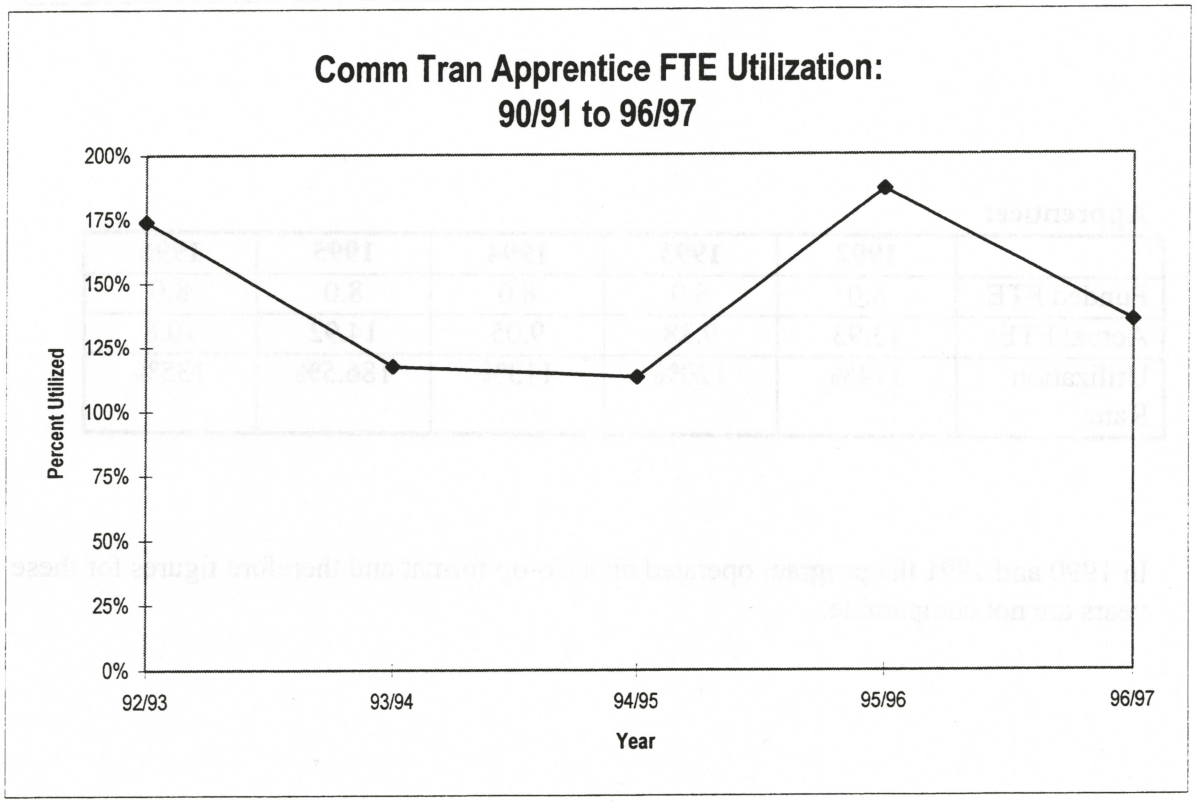


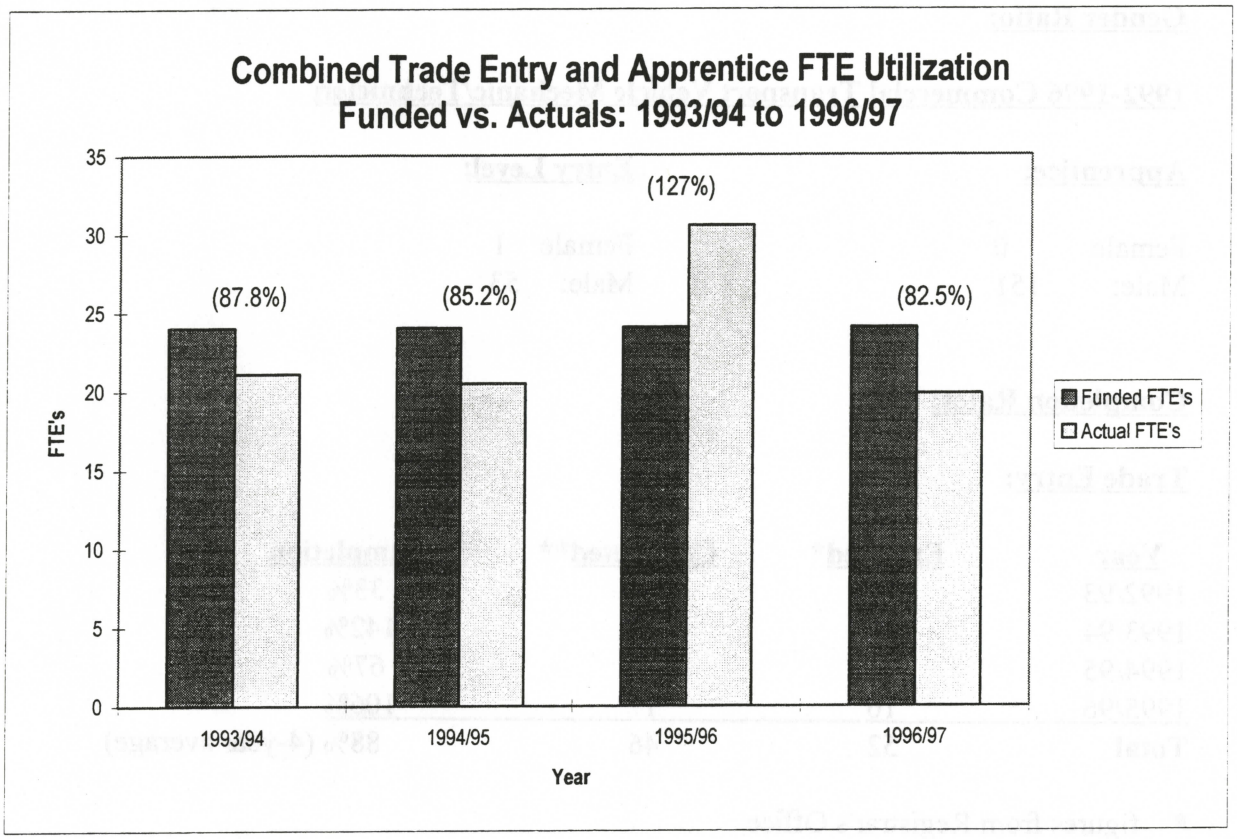
Apprentice:

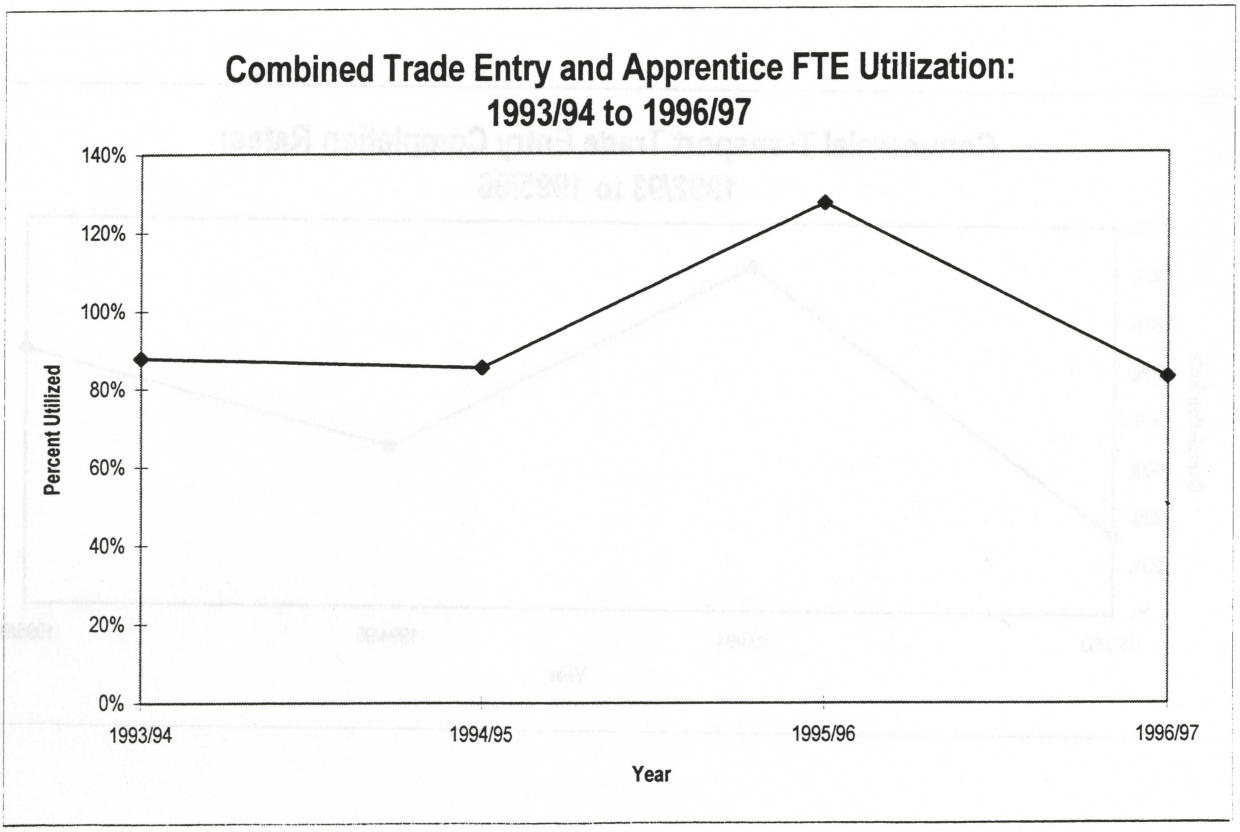
	1992	1993	1994	1995	1996
Funded FTE:	8.0	8.0	8.0	8.0	8.0
Actual FTE:	13.93	9.38	9.05	14.92	10.8
Utilization Rate:	174%	120%	113%	186.5%	135%

In 1990 and 1991 the program operated on a Co-op format and therefore figures for these years are not comparable.


Apprentice FTE's:
Funded vs. Actual
16
14
12
10
8
6
4
2
0
FTE's
(174.1%)
(117.3%)
(113.1%)
(186.5%)
(135.0%)
92/93
93/94
94/95
95/96
96/97
Year
FUNDED FTE'S
ACTUAL FTE'S


Comm Tran Apprentice FTE Utilization:
90/91 to 96/97
200%
175%
150%
125%
100%
75%
50%
25%
0%
Percent Utilized
92/93
93/94
94/95
95/96
96/97
Year


Combined Trade Entry and Apprentice FTE Utilization
Funded vs. Actuals: 1993/94 to 1996/97
35
30
25
20
15
10
5
0
FTE's
(87.8%)
(85.2%)
(127%)
(82.5%)
1993/94
1994/95
1995/96
1996/97
Year
Funded FTE's
Actual FTE's


Combined Trade Entry and Apprentice FTE Utilization:
1993/94 to 1996/97
140%
120%
100%
80%
60%
40%
20%
0%
Percent Utilized
1993/94
1994/95
1995/96
1996/97
Year

Gender Ratio:

1992-1996 Commercial Transport Vehicle Mechanic/Technician

Apprentice:

Female 0
Male: 151

Entry Level:

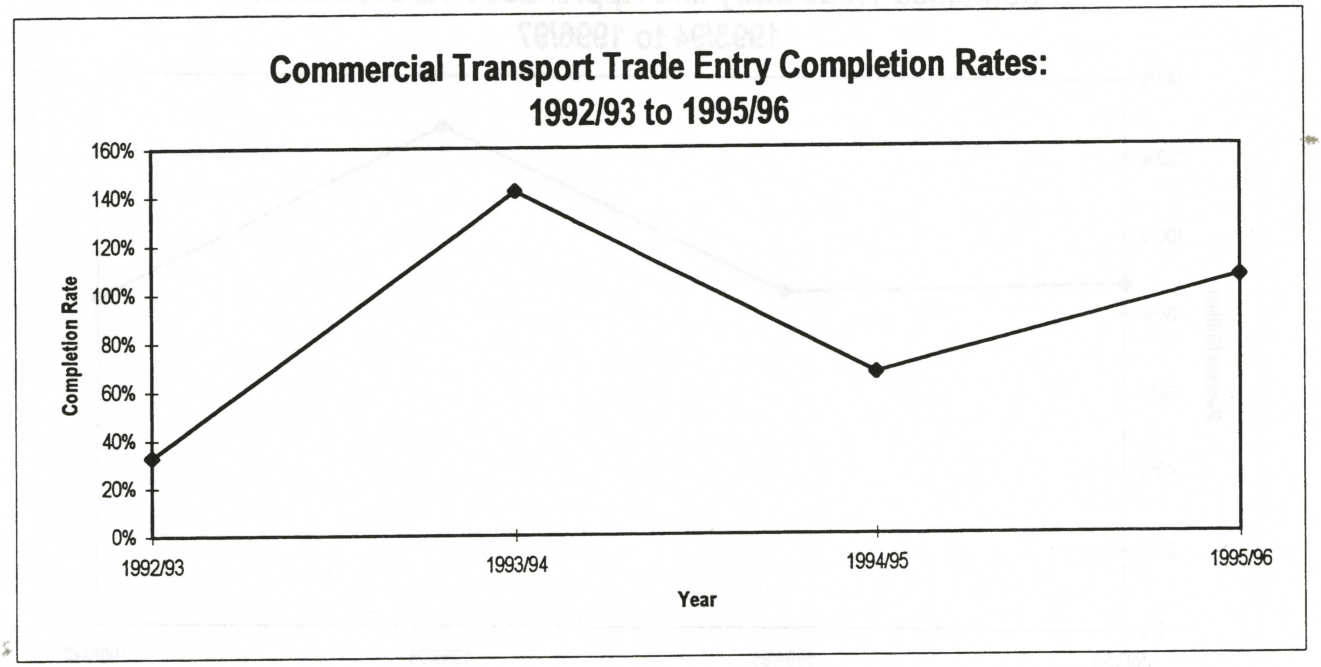
Female: 1
Male: 53

Completion Rates:

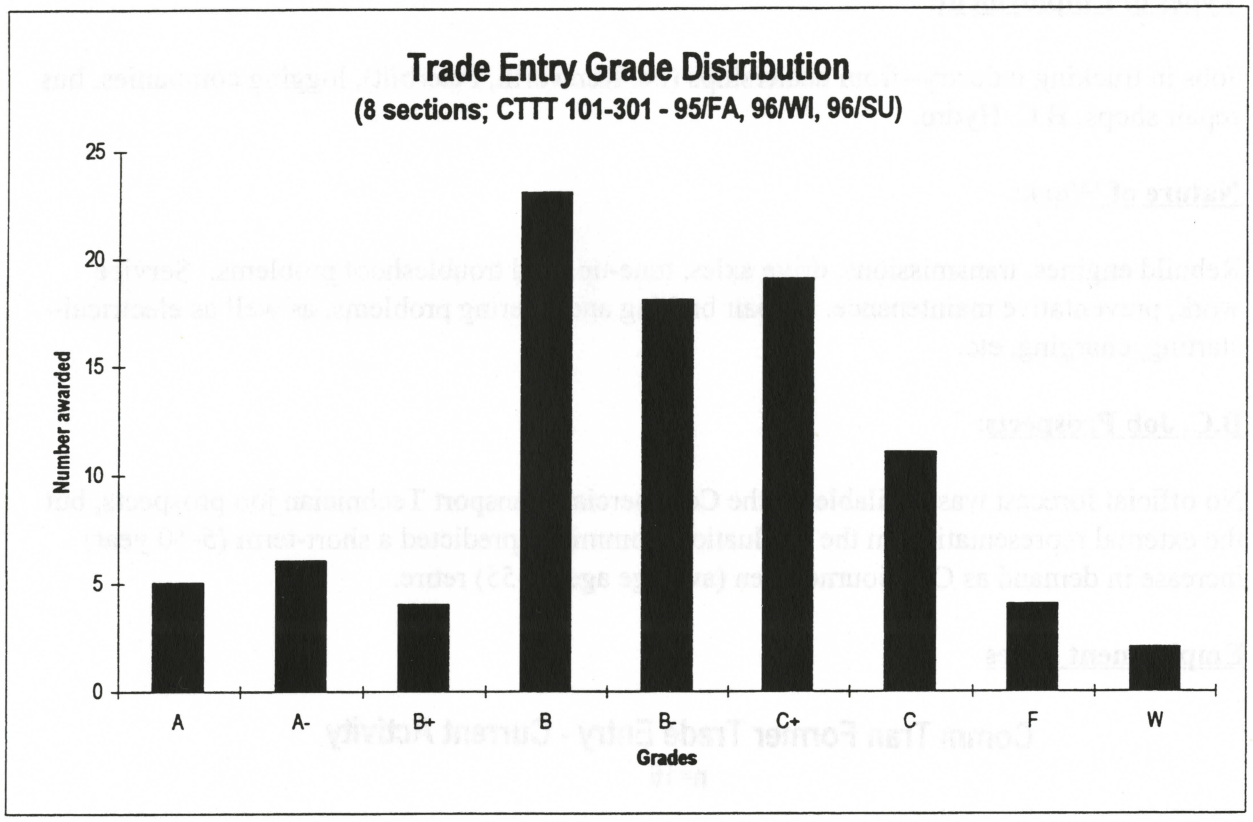
Trade Entry:

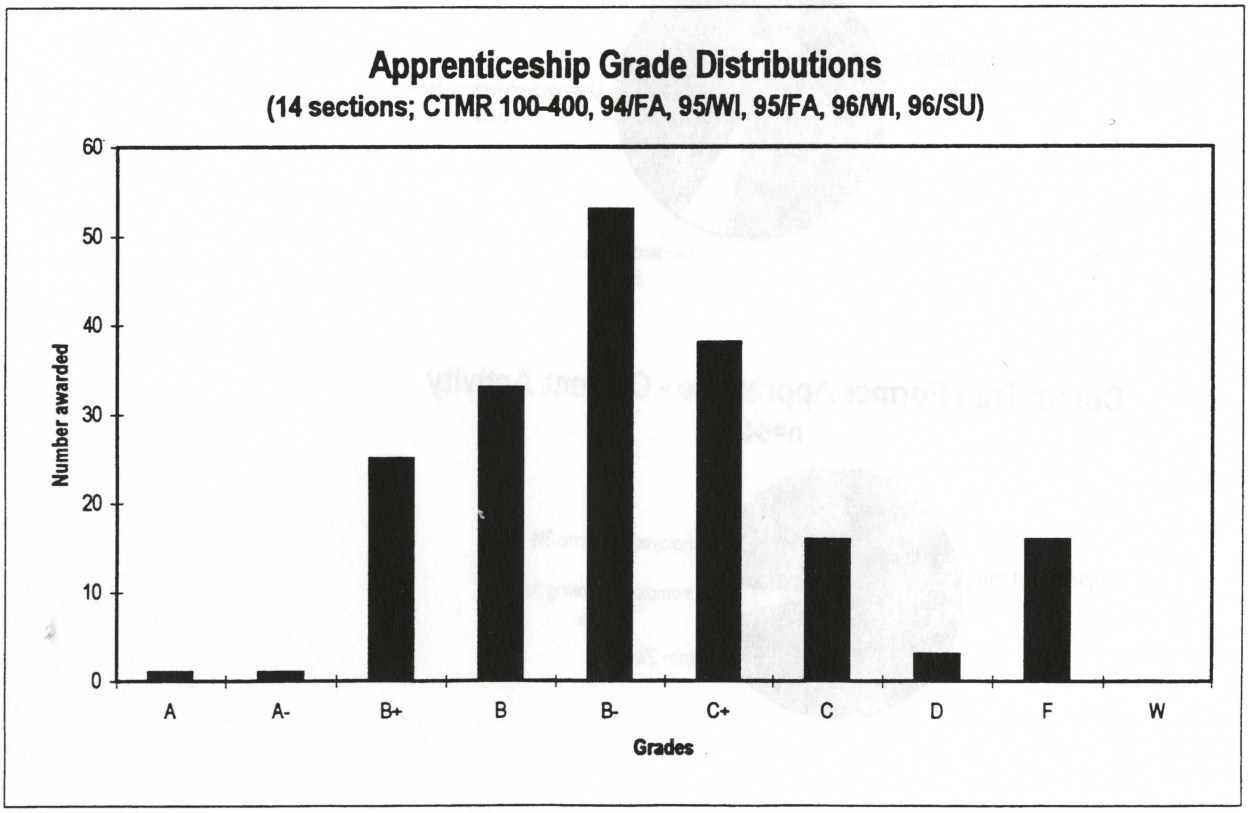
Year	Enrolled*	Completed**	% Completion
1992/93	12	4	33%
1993/94	12	17	142%
1994/95	12	8	67%
1995/96	16	17	106%
Total	52	46	88% (4-year average)

* figures from Registrar's Office
** figures from Convocation Lists, 1992-1996



GRADE DISTRIBUTION: COMMERCIAL TRANSPORT VEHICLE MECHANIC/TECHNICIAN PROGRAM (95/FA, 96/WI, 96/SU)





EMPLOYMENT PROSPECTS

Types of Employment:

Jobs in trucking industry--from dealerships (i.e. Kenworth, Peterbilt), logging companies, bus repair shops, B.C. Hydro.

Nature of Work:

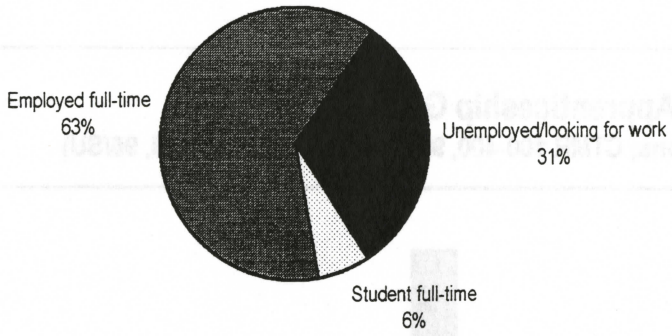
Rebuild engines, transmissions, drive axles, tune-ups and troubleshoot problems. Service work, preventative maintenance. Repair braking and steering problems, as well as electrical--starting, charging, etc.

B.C. Job Prospects:

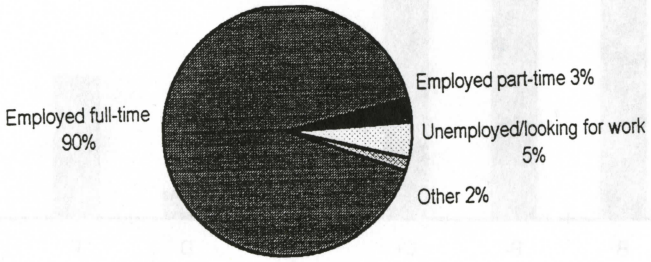
No official forecast was available on the Commercial Transport Technician job prospects, but the external representative on the Evaluation Committee predicted a short-term (5-10 year) increase in demand as CTT journeymen (average age 54-55) retire.

Employment Rates

Comm Tran Former Trade Entry - Current Activity
n=16

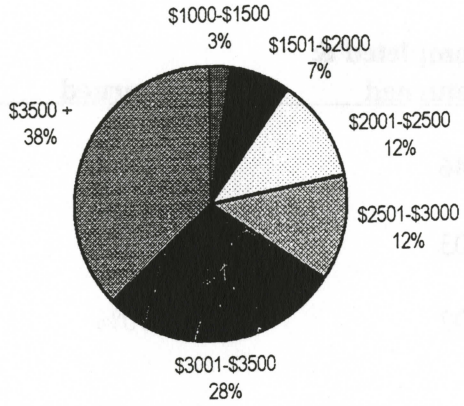


Comm Tran Former Apprentice - Current Activity
n=64

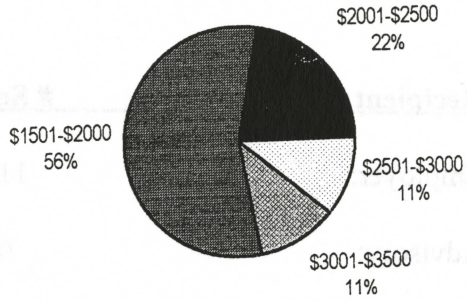


Salaries:

Comm Tran Former Apprentice Salaries
n=57

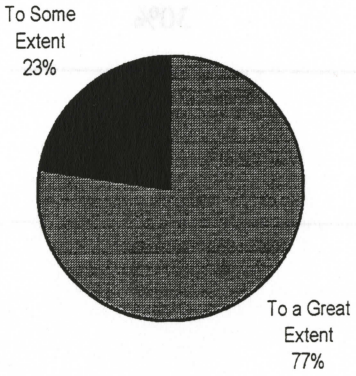


Comm Tran Former Trade Entry Salaries
n=9

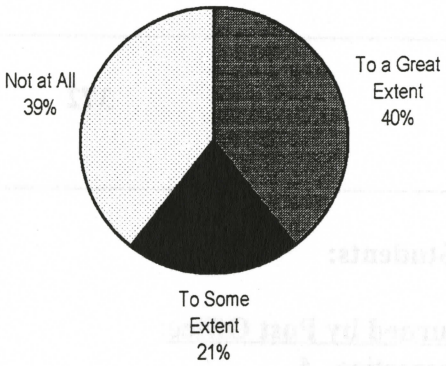


Training in Relation to Employment:

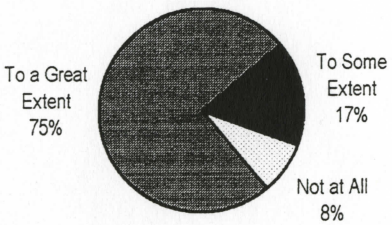
Comm Tran Former Apprenctice
Extent to which job is related to training
n=62



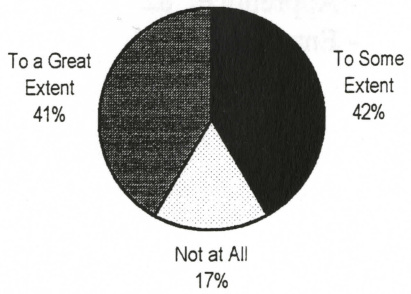
Comm Tran Former Apprentice
Extent to which training helped get job
n=61



Comm Tran Former Trade Entry
Extent to which job is related to training
n=12



Comm Tran Former Trade Entry
Extent to which training helped get job
n=12



TABULAR SUMMARY OF QUESTIONNAIRE RESPONSES COMMERCIAL TRANSPORT VEHICLE MECHANIC/TECHNICIAN PROGRAM REVIEW

The categories and quantities of responses are tabled below:

Recipient	# Sent	# Completed & Returned	% Returned
Employer:	112	46	41%
Advisory:	06	03	50%
Faculty:	02	02	100%
Students:			
- Current Apprentice	39	39	100%
- Current Entry Level	9	8	89%
Former Student:			
- Apprentice:	151	64	42%
- Entry:	53	16	30%
TOTAL	**372**	**178**	**48%**

Former Students:

Returned by Post Office:
- Apprentice: 5
- Entry: 5

Non-Respondents:
- Apprentice: 82
- Entry: 32

SUMMARY OF QUESTIONNAIRE RESPONSES

1. **Former Students: Apprentice and Entry Level:**
Of 80 former students responding, 35% were in the 25-29 age group, with 26% in the 18-24 age group, and 25% in the 30-39 age group. Eleven percent were in the 40 and over group.

Apprentice: 64 respondents:
Since leaving UCC, 58 (91%) indicated they were employed full-time (30 hrs/week or more), 2 (3%) were employed part-time (less than 30 hrs/week), 3 (5%) were not employed at the present time but were seeking employment, and 1 (1%) was listed under "other". It should be noted that the provincial average for vocational program employment is 73%.

Under the comments from this group, the instruction was given a very high rating. The average monthly salary range for this group of students was from $3000 to $3500.

In the general program effectiveness section, theory (at 3.81) and safety awareness (at 3.64) were at the top of the ratings. Areas that will require further emphasis are as follows: oral communications (2.73), work rate (2.72), report writing (2.71), customer relations (2.32), and computer skills (1.50). It should be noted that computer skills are not part of the curriculum, and that there may be some confusion between computers as diagnostic tools and computers as word-processing tools.

Library use received a low ranking of 2.05, but it should be noted that CTT students use the Learning Resource Centre (LRC) in the Applied Industrial Technology Division (AITD) for text and manuals. They are also required to purchase modules and text for their courses.

Entry Level: 16 respondents
Since leaving UCC, 10 (63%) indicated they were employed full-time, 1 (6%) was a full-time student, and 5 (31%) were looking for employment.

Once again it was noted that the instruction had a very high rating.

In the general program effectiveness section, theory was rated at 3.88, and safety awareness/team work at 3.56. Of other areas, these students identified much the same as the apprentices. The only differences were report writing (at 3.06) was acceptable, but ability to work independently (at 2.75) was only just below a satisfactory rating. UCC facilities, supplies and equipment were adequately rated at 2.69, and once again library use was at 1.10.

2. **Employers:**
One hundred and twelve questionnaires were sent out, with only 46 completed and returned. Thirty-eight respondents had hired CTT graduates in the last five years.

Once again, computer skills were rated low at 2.17; however, it should be noted that 35% of the respondents marked "don't know".

Other areas that drew low ratings were troubleshooting, electrical hydraulics, and diesel engines.

Service and adjust clutch/transmission/air brakes rated at 3.05, with safety awareness at 3.03. These are satisfactory ratings.

On the question of whether the CTT and HDMEC entry level courses should be merged, 54% responding employers agreed, 26% disagreed, 7% did not know or care, and 13% of the respondents did not answer the question.

3. **Current Students:**
The survey summary was taken across Trade Entry and Levels 2, 3 and 4.

As with the other surveys, it is noted that computer skills are rated very low (between 1.20-1.57).

The Level 2 students seems to have rated more areas of dissatisfaction, but this could be because they had a non-regular instructor, "not the instructor they had expected".

In general, areas that require more emphasis are self-directedness, customer relations, oral communication skills, and to a lesser extent, report writing skills.

Use of UCC library rated between 1.69-2.29. Once again these students make extensive use of the LRC in the AIT wing.

4. **Faculty Survey:**
The two instructors indicated that they do not require their students to make use of the library, rather the LRC.

The instructors agreed that the optimum class size at entry and apprenticeship levels should be held to a maximum of 16 students, both for student/instructor consultation and safety. Lack of Workers' Compensation Board coverage for entry level students was a concern.

On professional development, both instructors agreed that there was not enough funding to keep up to date but that they would use alternative funding when available, e.g. short term leave.

With regard to communications with other UCC staff, it was felt that the relationship between AIT and Student Advisors in the past was not as good as it should have been. However, meetings have been or will be held in the near future, with the aim of a better understanding between the departments.

Computer skills were addressed. The curriculum has no computer content because the material required takes all the time allowed, and it is noted that classes are of six hour duration (contract states five hours' contact). The question is how and where can computers be taught?

Both instructors displayed a great deal of satisfaction with the graduates from their program and follow their progress in the trade.

5. **Advisory Committee Survey:**

A very poor return from the committee elicited only three responses out of a possible six.

With only three persons reporting, most of the results were either "all agreed" or "two agreed and one against", e.g. on the question of future demand for program graduates, two said "increase" and one said "hold steady".

The suggestion was made that there was not enough response to really validate this survey. It was agreed that the Advisory Committee should be expanded, and changed in focus to support the split between Commercial Transport and Heavy Duty programs.

STRENGTHS OF THE PROGRAM

1. **Quality of Instruction:**
   Students, both "current" and "former", rated the instructors as the single most important positive feature of the program--written survey responses indicated this at a 70% frequency (76 of 108). Some of the words used in the questionnaires to describe the instructors were "knowledgeable", "fair", "demanding", "helpful", "consistent"--all highly complimentary in nature. Additional references were made in the Further Comments section citing a high quality of instruction. The faculty should be applauded for their efforts.

2. **Employment Rates:**
   The employment rate of 91% of the former students in the trucking industry exceeds the provincial averages of 73% for Career Technical/Vocational graduates and 71% for academic graduates (see Provincial Outcomes Report, 1995). This reflects both the demand for trained technicians in the industry and the quality of students graduated from the program. Instructors play a significant role in securing employment for their students through liaison with the industry.

3. **Geographical Location and Uniqueness of the Program:**
   Apprentices have attended the program from home communities in Ontario, Alberta and throughout British Columbia. A strong contingent of graduates has come from the Central and Northern Interior areas of B.C., including Smithers, Burns Lake, Fort St. John, Prince George, and Quesnel--28 of 63 respondents. (See distributions on Appendix maps B and C.) These demographics are significant and show the importance of having a program of this nature in the Interior. BCIT has the only other Commercial Transport Technician apprentice program in the province.

4. **A Focused Program for the New Trade Designation of CTT (expected within two years):**
   Other institutions maintain joint Commercial Transport/Heavy Duty Mechanics programs (e.g. CNC, Camosun, OUC, FVUC, VCC); however, the trend is towards two separate trade certificates, one for CTT and one for HDMEC, and the UCC program is positioned for that eventuality. Technological developments in new truck components include computer-shifting transmissions, computerized braking systems and "cam-less" computerized engines. These, combined with the extensive use of computers to diagnose malfunctions, increase the need for more technologically trained service personnel in the industry. The focus of this program allows for future expansion of curriculum to meet the rising technological demands of the industry.

5. **A Good Working Relationship with the Commercial Transport Industry:**
Over the years, the industry has provided teaching aids in the form of trucks and components as a measure of support for the program. Local companies (for example, Peterbilt, Mack, Western Star) as well as others (Inland Kenworth-Parker Pacific in Vancouver has a "cycle through" system for providing equipment to be used in shop class), have contributed extensively. Dealers supply non-returnable warranty items and students also contribute components from their work source for use in the program.

Another positive indicator for program support is that student placements for practica are never in short supply.

Generally, industry has shown, and continues to show, a high level of confidence in the program and the product.

6. **Value-Added Instruction:**

Licensed journeymen provided by the industry (i.e. dealers) volunteer to deliver specialized shop/classroom instruction in areas of new technology. The cost to the program is nothing, and these guest lectures and demonstrations enrich the instruction received by the students.

AREAS OF COMMERCIAL TRANSPORT TECHNICIAN PROGRAM WHICH CAN BE IMPROVED (WITH RECOMMENDATIONS)

The Evaluation Committee identified the following aspects of the CTT program as being in need of improvement. Recommendations are priorized.

1. **Enrolment:**

It was noted that, for four of the last five years, the Entry Level course was not filled. The causes of this are threefold:

(1) a lack of clarity among high school counsellors, employers, UCC academic advisors and the general public about the nature and focus of the program;

(2) less than vigorous promotion of the program by those responsible--specifically the Advisory Committee; and untimely advertisement, too close to the program start date, by Public Relations;

(3) the fixed intake format of the program, which allows for no "top-up" as the program progresses through the year, and indeed accentuates under-utilization.

To alleviate this situation, the Commercial Transport Technician Program Evaluation Committee recommends the following:

(a) that the Commercial Transport Technician Faculty, in conjunction with the Chair, Mechanical Trades, and the Dean, Applied Industrial Technology, clarify the identity of the Commercial Transport Technician Program by placing the word "Truck" in parenthesis after "Commercial Transport" in all references to the program in the UCC Calendar and program brochures;

ACTION: CTT faculty; Chair, Mechanical Trades; Dean, AIT

(b) that the CTT faculty meet on a regular basis, once a year, with the UCC academic advisors to up-date them on changes in the CTT program and to reinforce its separate identity;

ACTION: CTT faculty

(c) that the Dean, Applied Industrial Technology and the Chair, Mechanical Trades, secure the <u>active</u> support of the Commercial Transport Technician Advisory Committee in promoting the program to the industry and to the public in general; (see also "ADVISORY COMMITTEE")

ACTION: Dean, AIT; Chair, Mechanical Trades

(d) that the Dean, Applied Industrial Technology, the Chairperson, Mechanical Trades and the CTT faculty ensure that the Public Relations Department advertises the program on a more aggressive, province-wide basis than previously, and that advertising be done in a timely manner (i.e. in spring rather than late summer);

ACTION: Dean, AIT; Chair, Mechanical Trades

(e) that the CTT Trade Entry instructor secure funding from the Dean, AIT to engage in annual high school visitations with a view to promoting the CTT program and attracting more students into it.

ACTION: CTT Trade Entry Instructor

Also discussed were three other responses to the CTT Trade Entry enrolment problem: amalgamation with the Heavy Duty Mechanic Trade Entry; modularization; and moving to a continuous entry/exit program format.

The first of these, the Committee suggests, is an option of last-resort. Even though 54% of the employers responding to the survey indicated that they agreed with merging Trade Entry Level CTT with Trade Entry Level HDMEC, 26% disagreed, and the accompanying written opinions suggested some reservations about the concept. Moreover, substantial arguments were marshalled about the increasing divergence of the two trades and the increasing need for specialists in each. On the other hand, 70% of the Trade Entry curriculum in the two programs is common, thus facilitating a merger, if necessary, for purposes of utilization efficiency.

Modularization is another approach to the problem. This would provide blocks, or modules of instruction, at Trade Entry Level across the whole Mechanical Trades Department, so that students from all programs there--Automotive, Commercial Transport, Heavy Duty Mechanics and Marine/Small Engine--would take common core modules such as brakes, batteries and safety theory at the same time. This approach would yield economies of scale on the theory components of the programs, and assumes a continuous entry model is in place across all programs. The Ministry of Education, Skills and Training is indicating that it favours this approach to delivering all Trade Entry programs, but time and instructor-release will be required to write the necessary modules.

On the issue of program format, the Committee noted the discrepancy at UCC between the continuous entry format used in HDMEC and the fixed intake model used in CTT and how HDMEC enrolments have not experienced the same dramatic fluctuations as those in CTT because continuous top-up is in place. It feels that moving CTT to a continuous entry format would not only anticipate Ministry intentions on program delivery, but would provide some relief to the enrolment problem. Accordingly, it recommends:

(f) that the Dean, Applied Industrial Technology, the Chairperson, Mechanical Trades, and the CTT Trade Entry Instructor implement as expeditiously as possible a move to continuous entry/exit format in the Commercial Transport Technician Trade Entry program.

ACTION: Dean, AIT; Chairperson, Mechanical Trades; Instructor, CTT Trade Entry

2. Program FTE Profile:

At the time of this review, the question of FTE profiles for the Commercial Transport Trade Entry and Commercial Transport Apprentice programs was raised, and after comparing the provincial numbers with local knowledge, the situation remains unclear. The problem is that although 24 FTE are currently allocated to Commercial Transport, only the Trade Entry "actuals" are being recorded against this figure, with the result that the utilization rate looks worse than it is. No account has apparently been taken of instructional activity at the apprentice levels of the program; no-one knows how many, if any, FTEs are officially allocated to Commercial Transport Technician apprenticeship. The Evaluation Committee recommends:

(a) that the Dean, Applied Industrial Technology, clarify the funded FTE allocations for Commercial Transport Trade Entry and Commercial Transport Apprenticeship so that they reflect the actual instructional activity taking place in these areas.

ACTION: Dean, AIT

3. Equipment:

Comments from former students, current students, and faculty pointed to the out-dated equipment in the CTT shop. The Evaluation Committee acknowledges the need for new or updated equipment for the students to work on, but is also aware that this state of affairs pertains across the whole Applied Industrial Technology Division and has long been a bone of contention. It sees partial relief, however, in the UCC Equipment Fund Campaign slated to start in Spring, 1997, and recommends:

(a) that CTT faculty participate whole-heartedly in the Equipment Campaign and avail themselves of their share of the funds thus raised;

ACTION: CTT faculty

(b) **that CTT faculty continue to solicit equipment donations from industry (see "STRENGTHS" #5);**

ACTION: CTT faculty

(c) **that CTT faculty continue to avail themselves of short-term loans from and guest demonstrations of equipment by industry (see "STRENGTHS" #6).**

ACTION: CTT faculty

4. **Advisory Committee:**

The 50% non-response rate for the CTT Advisory Committee questionnaire suggested a lack of interest in the review process on the part of half of its members. The external representative on the Evaluation Committee, Peter Saruga, suggested that the Advisory Committee felt limited and frustrated in its role and that the existing structure of Advisory Committee, combining both Commercial Transport and Heavy Duty Mechanic interests, has a somewhat diluting effect. Further discussion elicited the following recommendations:

(a) **that the CTT Advisory Committee be reconstituted as a separate entity from its predecessor, the joint CTT-HDMEC Advisory Committee;**

ACTION: Dean, AIT

(b) **that the membership of the CTT Advisory Committee be expanded up to eight members, that representatives be drawn from the whole UCC region, and that former and current students representation be included;**

ACTION: Dean, AIT; CTT faculty

(c) **that CTT Advisory Committee members be thoroughly familiarized with the terms of reference and responsibilities of UCC Advisory Committees (see UCC Regulations R-2013, page 2), particularly Terms of Reference 2a, 2e and 2f.**

ACTION: Dean, AIT; CTT faculty

5. **Facilities:**

Concern was expressed by the program instructors that the new facilities in the AIT Centre would be too small--the classroom is slightly smaller but the shop floor space is almost 50% less in the new building. However, the new outside storage area with accompanying service of a "utilities person" to move materials to the shops may alleviate some of the problems envisaged as "crowding" in the new facility. Two concerns remain:

(1) the lack of security fence around the new parking compound (for trucks), and

(2) the chance of freezing temperatures causing damage to water-cooled engines stored outdoors.

The Committee felt the new facilities would be a big improvement and recommends:

(a) that, since expansion of the new AIT building does not seem feasible in the foreseeable future, CTT faculty make the most of the new environment and adjust their teaching systems, if necessary, to the limitations in space.

ACTION: CTT faculty

6. **Curriculum:**

In many different submissions to the review, reference was made to the need for more emphasis on:

(1) Customer Relations;
(2) Report Writing;
(3) Computer Skills.

Verbal communication in the shop was noted as an essential skill.

Trouble shooting was given high priority in the survey responses from both employers and students; however, it is seen as a product of time and on-the-job learning, which occurs throughout the working life of a Commercial Transport Technician. High expectations for apprentices in this area are considered unrealistic; however, the attitude and composite skills needed are encouraged throughout the apprenticeship program at UCC. Completion of this program cannot be considered to provide all the necessary skills and experience necessary to be a seasoned mechanic, but rather to provide a "ticket to learn" the trade, inside and out, over time.

As the technology expands, more and more emphasis will be placed on "electronics" for diagnostic purposes, and this part of the curriculum will need to be expanded.

The new provincial thrust to modularize courses will help to provide curriculum for short courses to allow for upgrading of existing journeypersons.

The students interviewed (4th year apprentices) suggested the development of a "tool chart" for the new toolroom, complete with shelf numbers, and a list of tools with the recognized names, for each toolbox.

Recommendations are as follows:

(a) **that the CTT instructors lay more explicit emphasis on customer relations, oral communication and report writing skills as they deliver their curriculum;**

ACTION: CTT faculty

(b) **that CTT faculty give their students some exposure to word-processing by arranging to use the Partsperson Laboratory computers in the new facility;**

ACTION: CTT faculty

(c) **that CTT faculty avail their students of whatever "lap-top" diagnostic computer demonstrations are available through industry;**

ACTION: CTT faculty

(d) **that Chairperson, Mechanical Trades supervise the construction of a tool-room chart for the new toolroom, listing tools by their recognizable names and corresponding shelf numbers, and put copies of this chart in each student tool-box.**

ACTION: Chair, Mechanical Trades

7. **Professional Development:**
Instructional staff were concerned that the annual individual allotment of $250 was insufficient. Through discussion, it became clear that further funds are available for short term leave and scholarly activity, and program faculty were encouraged to apply.

The Committee recommends:

(a) **that CTT program faculty apply for short-term leave and scholarly activity funds.**

ACTION: CTT faculty

8. **Articulation Concerns:**
Students raised concerns that different texts were required at BCIT and UCC. It seems that BCIT has a history of changing texts arbitrarily without consultation and it is felt an attempt should be made to formalize a better working relationship between the two institutions in this regard.

Provincially, students are accepted into the CT apprenticeship through the Entry Level program or directly, to Level I (with a Pre-APP test). But not all apprenticeship candidates are tested, and this causes inconsistencies in the knowledge level of Level 1 apprentices. It would appear that the Apprenticeship Board should be encouraged to either test everyone or require all prospective students to take the Entry Level Program prior to an apprenticeship. At present, the Branch tests all applicants to the Electrical Apprentice Program only.

The Evaluation Committee makes the following recommendations:

(a) that, at their articulation meetings, the CTT instructors lobby for text-book uniformity for CTT programs throughout the province;

ACTION: CTT faculty

(b) that the CTT instructors and the Dean, Applied Industrial Technology, lobby the Apprenticeship Board for either uniform testing or uniform completion of the Trade Entry program as a pre-requisite to the Commercial Transport Apprenticeship program.

ACTION: CTT faculty; Dean, AIT

APPENDIX A

METHODOLOGY

The data were collected in the following ways:

1) Consultation took place with Joe Strumecki, Instructor, CTT, and Gordon Tordoff, Chairperson, Mechanical Trades, on the design of the questionnaires.

2) Standard questionnaires were administered to Commercial Transport former students, employers, faculty, current students and Advisory Committee members. All data were processed using SPSS for Windows to achieve mean, mode and standard deviation responses. Verbal comments for each group were recorded separately and anonymously.

3) "Descriptive Data" on the Commercial Transport Program's history, description, objectives, budget, etc., were solicited from Gordon Tordoff, Chairperson, Mechanical Trades, and David Wharf, Instructor, CTT.

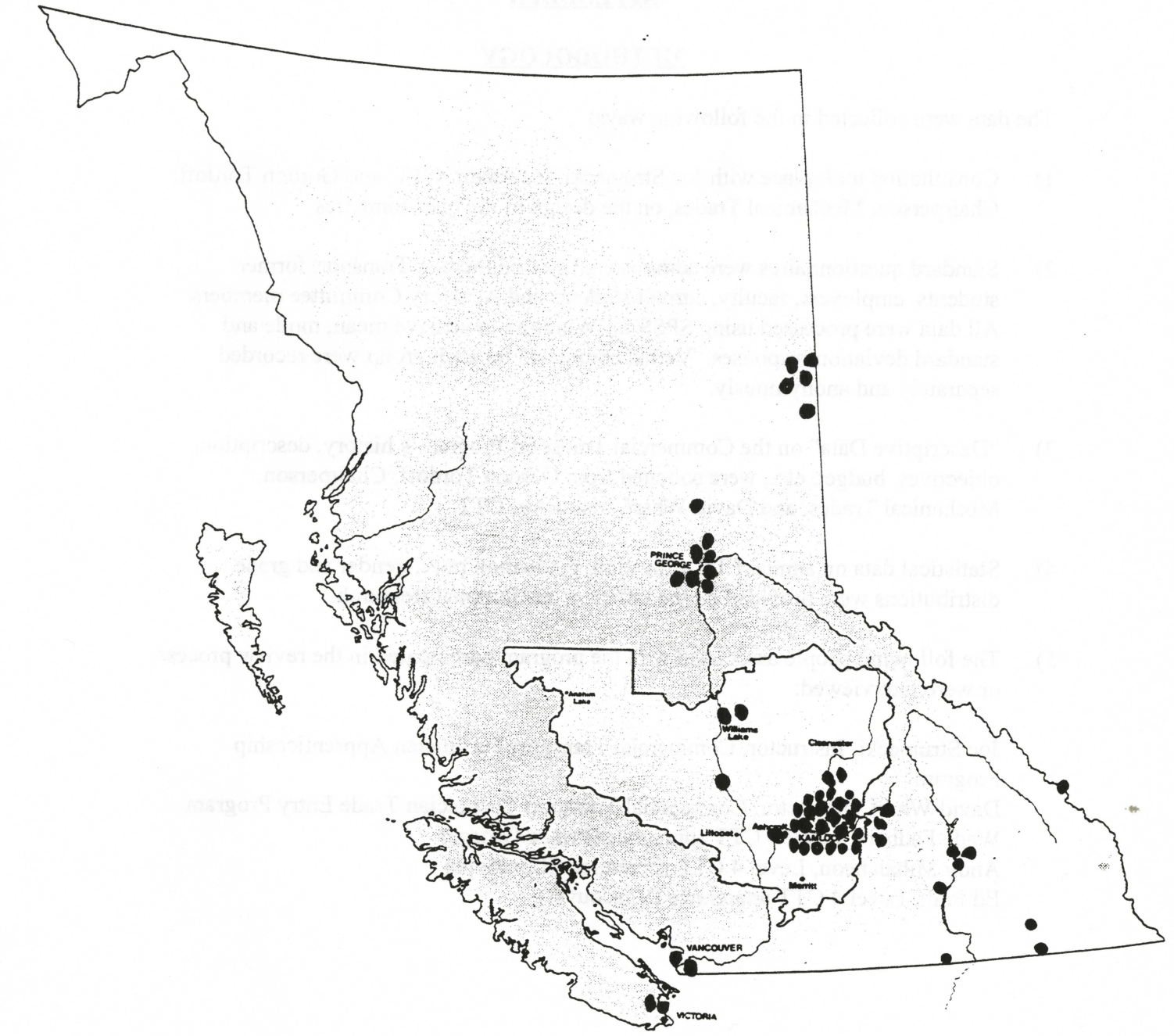
4) Statistical data on annual FTE utilization, graduation rates, gender and grade distributions were provided by the Office of Institutional Research.

5) The following people associated with the program participated in the review process or were interviewed:

   Joe Strumecki, Instructor, Commercial Transport Technician Apprenticeship Program
   David Wharf, Instructor, Commercial Transport Technician Trade Entry Program
   Wade Fadham, Level 4 CTT apprentice (Prince George)
   Andy Mihalcheon, Level 4 CTT apprentice (Kamloops)
   Ed Pratt, Level 4 CTT apprentice (Vancouver)

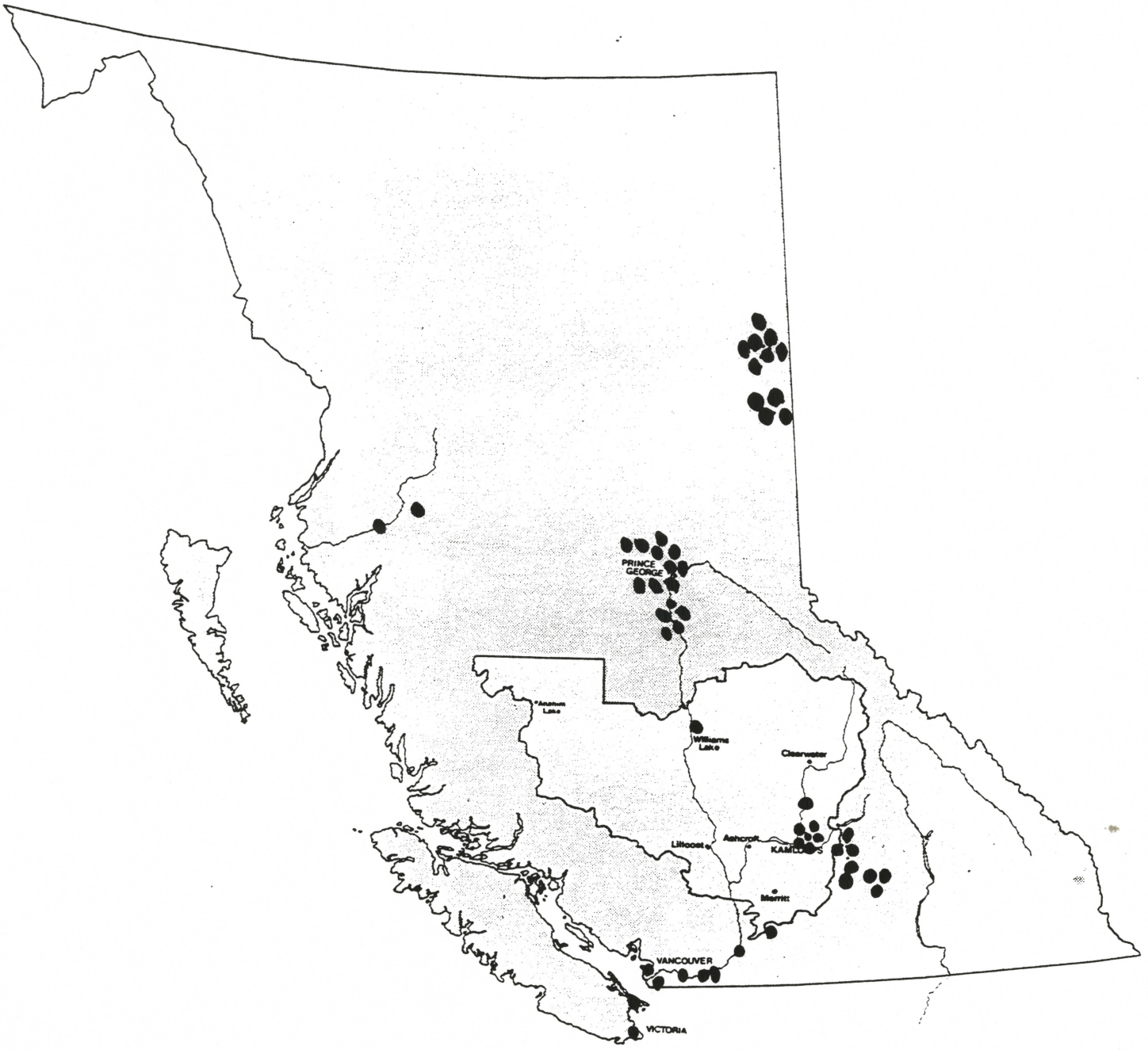
APPENDIX B

COMMERCIAL TRANSPORT TRADE ENTRY STUDENTS' HOME TOWNS 1992-96



APPENDIX C

COMMERCIAL TRANSPORT APPRENTICE STUDENTS' HOME TOWNS 1992-96



APPENDIX C

TRANSPORT APPRENTICE
HOME TOWNS 1992-96