Tracking Student Mobility Between the Public and Private Post-Secondary Education Sectors in British Columbia: A Feasibility Study

BCCAT
BRITISH COLUMBIA COUNCIL ON ADMISSIONS & TRANSFER

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EXECUTIVE SUMMARY

This study examines the feasibility of establishing a student mobility tracking system that encompasses both the public and private post-secondary education sectors in British Columbia. In a knowledge-based economy it would seem appropriate to have a good understanding of not only the demographic and programmatic make up of the student bodies in both post-secondary sectors but also the degree to which students move between the two sectors over time. Accordingly, the study commences with an examination of the relevant data elements collected by five organizations: the Private Career Training Institutions Agency (of BC) (PCTIA); the Ministry of Education (MOE) for the collection of the Provincial Education Number (PEN); the Central Data Warehouse (CDW) administered by the Ministry of Advanced Education (AVED); The University Presidents' Council (TUPC); and Student Aid BC (SABC) administered by AVED. In addition, the data elements collected by the Student Transitions Project (STP) are outlined. This latter initiative was launched in 2005 and is designed to more effectively share information across public education systems to answer questions on student mobility. The STP is significant within the context of this study in that it lays the foundation for the development of a comprehensive cross-sectoral student mobility tracking system. However, the development of such a system faces a number of challenges.

While issues connected with the diversity of the data structures in the public sector have been dealt with, for the most part, by the STP, developing linkages with the equally complex data structure found in the private sector will be challenging. PCTIA gathers large amounts of data from its members, much of it connected with their registration status. However, currently PCTIA's programmatic and demographic data elements do not match those in the STP. Moreover, PCTIA institutions, and those private institutions offering Degree Quality Assessment Board (DQAB) approved degrees, do not have the ability to collect PEN data. However, legislation now in train in the BC Legislature will address this latter issue. Other challenges to cross-sectoral student mobility tracking arise from the need to coordinate the timing of STP and PCTIA data collection events and the differential use of National Occupation Classification (NOC) and Classification of Instructional Program (CIP) codes by the public and private sectors. Nevertheless, the study suggests that these challenges are surmountable and can be addressed through the development of a pilot project which focuses, first, on degree programs and, second, on the sub-degree programs in the public and private sectors.

The tracking of students moving between private and public sector degree programs will be greatly facilitated by the extension of the PEN to all DQAB approved degree programs. This will probably happen relatively quickly, but, because of the need to standardize data element structures across the two sectors (based on STP standards), a tracking system can not likely be launched before Fall 2008.

As to the component of the pilot project that focuses on student mobility between sub-degree programs and between those programs and undergraduate programs, PCTIA's involvement is key. It is suggested that discussions be started soon regarding the

processes by which the PCTIA and STP data element standards can be meshed. Moreover, given the large number of private sector institutions offering sub-degree programs, it is proposed that a subset of private institutions could be approached to volunteer to be part of the pilot project. These institutions would include: (a) those private institutions that already have bi-lateral articulation agreements in place with public sector institutions; and, (b) those private institutions that offer programs where the curriculum is likely to be comparable with the public sector and where there is likely to be student interest in, or demand for, transfer of credit (e.g. Business, Early Childhood Education, Counselling, Tourism and Hospitality, Arts and Media, and Health). This subset of private sector institutions would act as a 'proving ground' for the eventual sector-wide implementation of STP data element standards. While some manual data matching would be necessary in the absence of PEN data, this phase of the pilot project could also usefully work through the issues that PCTIA and the volunteer institutions would face with PEN implementation. Eventually, regular studies involving student mobility between all programs – both degree and sub-degree – would begin when the PEN data was extended to private post-secondary institutions.

INTRODUCTION

This study will examine the feasibility of developing a student mobility tracking system that encompasses the entire post-secondary system in BC. Currently, the vast majority of the private post-secondary sector has no formal link with institutions in the public sector. As a consequence, little is known beyond anecdotal evidence about the student mobility between the two sectors. For a provincial economy that is becoming increasingly dependent upon the application of knowledge from a well-trained and educated workforce, this lack of information could well be significant. Moreover, this lack militates against any effort to integrate the public and private post-secondary education sectors for the benefit of students and, indeed, of the economy.

Notwithstanding these general concerns there have been some positive developments with respect to building closer ties between the two post-secondary sectors. For some time, a handful of private sector post-secondary institutions have been able to enter the BC course transfer system (BC Transfer Guide) through a process formerly managed by The University Presidents' Council (TUPC). And, in 2002 the Degree Authorization Act and the establishment of the Degree Quality Assessment Board (DQAB) introduced a new process whereby private institutions with approved degrees are listed as Program Members of the BC Transfer System with the ability to articulate their approved degrees with public sector institutions. This latter development marks a significant step towards the development of a seamless relationship between public post-secondary institutions and those private institutions that have undergone a rigorous quality assessment process. The relationship will allow undergraduate students to switch between institutions in the two sectors without loss of credits and without the need to repeat courses already taken.

This study will provide guidance on how to enable the collection of sufficient student, program, and institutional information from the private sector to allow for the efficient tracking of students who move between the two sectors of the post-secondary system. Finally, the study will propose a pilot project aimed at developing a phased approach to developing an inter-sectoral student mobility tracking system.

Rationale

During the past three decades British Columbia's economy has made the transition from one that is largely resource-based to one that is now almost completely knowledge-based. While the mining and forestry sectors are still the financial mainstays of the economy, employment in these sectors has declined dramatically as a consequence of the application of knowledge in the form of advanced technology to the extraction and processing of raw materials. At the same time, new knowledge-intensive businesses, industries and services have emerged, providing new employment opportunities and leading to a general diversification of the province's economy. In addition, these new knowledge-based economic endeavours have enabled the province's economy to play a significant role in the larger global economy.

This economic transformation has been accompanied by a rapid expansion in the size and scope of the province's post-secondary system, an expansion that has provided the well-trained and educated workers needed in a knowledge-based economy. At the same time, most of BC's population has come to see post-secondary education as the key to economic and social well-being and citizens have enrolled in public and private post-secondary institutions in increasing numbers. Given the economic and societal importance of post-secondary education in the 21st Century it would seem reasonable that the provincial government would have a good understanding of the size and scope of the entire post-secondary system in the province. Unfortunately, this is not the case. While there is a firm grasp of the dimensions of the public post-secondary sector, comparable data for the private post-secondary sector is not readily available. As a consequence, the extent of the private post-secondary sector's contribution to human resource development in the province is not well understood and virtually nothing is known about the extent of student mobility between the two sectors of the province's post-secondary system. Clearly, if the provincial government is to have a firm foundation on which to base economic planning and policy development in a knowledge-based economy it would be prudent to have an understanding of the scope and dimension of the entire post-secondary system in the province.

The strategic context at the provincial level for this study is clear: there is a need to have benchmark data on the size and scope of the province's entire post-secondary system and on the nature of student mobility between the two sectors. But why would the two sectors be interested in this kind of data? The answer to this question can be found within the narrower issue of student mobility, particularly as it relates to expected declines in enrolment in the key 18 to 24 age group in the next decade and the growing need for re-skilling and upgrading in the workforce.

In the past three decades, British Columbia has seen a significant increase in the number and range of private post-secondary institutions operating within its jurisdiction and, of course, a corresponding increase in the number of graduates from that sector. Currently, it is not known in any systematic way as to whether or not graduates from career programs offered by private sector institutions receive any recognition for their coursework if they apply to enter public sector institutions. Granted, a number of private institutions are involved in the transfer system administered by the BC Council on Admissions and Transfer (BCCAT) and, in addition, bi-lateral course and program transfer agreements between individual public and private sector organizations can be found across the province. However, these arrangements tend to be the exception rather than the rule; essentially, the sectors operate as two solitudes. This lack of transfer capability may well be placing a brake on student mobility between the two sectors – we simply do not know if this is the case. What we do know is that in the next decade the province's economy will be increasingly challenged by the effects of a shrinking working population and by the need to deepen its integration into a knowledge-based world economy.[1]

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[1] Andrew Ramlo and Ryan Berlin, "A Perfect Storm: Sustaining Canada's Economy During Our Next Demographic Transformation." Urban Futures Institute: Vancouver, BC, 2006.

Increased student mobility between the two post-secondary sectors would help ensure that all students and graduates in the province would have more flexible pathways to upgrading and re-skilling, both key to personal and organizational success in a global knowledge-based economy. From the perspective of private sector institutions, increased student transfer opportunities would be a useful marketing tool. And, having access to data on student mobility would be a useful tool in the private sector's efforts to demonstrate the important role they play in the development of human capital in the province. On the other hand, public sector institutions would gain from being able to tap into a significant pool of private sector graduates. This latter ability will become increasingly important in the next decade as the 'echo generation' graduates and the number of people in the crucial 18 to 24 age group goes into decline. As David Foot recently told a conference organized by the Ontario Confederation of University Faculty Associations, when the baby boom echo leaves the post-secondary system, institutions are going to be faced with a shortage of students, especially at the university level.[2] We can expect that competition for students in the public sector is going to increase and that public sector institutions will be seeking to attract graduates from the private post-secondary sector for periods of further study or skill upgrading.

In summary, this feasibility study is part of a larger, long-range initiative on the part of BCCAT to lower unwarranted barriers between the public and private post-secondary sectors. The ultimate objective would be to have a post-secondary system that allows students and graduates to have access to the full range of educational opportunities available in the province and to receive full recognition for equivalent learning, within the context of a well-defined and managed quality assurance process.

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[2] Colin Perkel, "Jammed Universities to Face Shortage of Students." Canadian Press. January 21, 2007

CHARACTERISTICS OF THE DATA SETS

Overview

Several organizations in British Columbia currently gather data about institutions, their programs, and institutions:

- Private Career Training Institutions Agency (of BC) (PCTIA)
- Ministry of Education (MOE) for the collection of the Provincial Education Number (PEN)
- Central Data Warehouse (CDW) administered by the Ministry of Advanced Education (AVED)
- The University Presidents' Council (TUPC)
- Student Aid BC (SABC) administered by AVED.

In addition, the Ministries of Advanced Education and Education (representing the CDW project), BCCAT, and the universities have been cooperating recently on the Student Transitions Project (STP). The STP initiative was launched in 2005 and is designed to more effectively share information across public education systems to answer questions on student mobility.

The five organizations listed above together collect over a thousand data elements. Approximately 350 of these data elements were deemed potentially relevant to this study and were entered into a master spreadsheet. (Because of its size, the master spreadsheet is not reproduced with the paper version of this report but is available in electronic form from BCCAT.) Further analysis revealed that approximately 40% of the selected data elements were not relevant to this study and were therefore excluded from the working spreadsheet.

The remaining data elements in the working spreadsheet were clustered into seven categories; however, not all organizations reported data under all seven clusters. Table 1 (below) provides an overview of the distribution of relevant data elements in each category. It should be noted that the data elements reported under the STP column are duplicates of those found in the CDW and university columns.

A large majority of the data elements in the data clusters found in Table 1 are not perfect matches. This is not surprising given that five different organizations are collecting data with, until recently, only minimal coordination between them. As a result, data is collected at different times during the year using different field definitions, sizes, and formats. The reader should be aware, therefore, that the following discussion and analysis is at a general level. If a decision is taken to expand student mobility tracking to

the private sector institutions, then technical staff at those organizations involved in the project will have to establish data compatibility protocols.

Table 1: Distribution of data elements among data categories and organizations

Data Category	PCTIA	MOE/PEN	CDW	TUPC	SABC	STP
Institution Identifier	2	2	2	1	3	3
Private Institutions Identifiers	16	-	-	-	5	-
Program Information	18	-	13	14	3	6
Program Level Enrolment	4	-	6	10	-	-
Course Information	-	-	21	-	-	-
Course Level Enrolment	-	-	43	-	-	-
Student Personal Info	-	11	10	5	8	6

Nature of the Data Sets

PCTIA

The Private Career Training Institutions Agency (PCTIA) stores and collects hundreds of data elements each year according to a monthly schedule of review of institutional information. Enrolment data is collected as of November 1st of each year, with a final reporting date of December 15th. Because PCTIA performs registration and accreditation functions for its private sector members, much of the data it collects addresses organizational parameters (for example: PCTIA registration number, operating address, legal business name, financial status, etc.). PCTIA does not collect information about individual students.

The student enrolment data currently collected by PCTIA comprises:

- Name of Program
- Program NOC code*
- Program duration (months)
- Program tuition

- Number of registrants
- Number of withdrawals
- Number of graduates
- Full and part time job placements (for accredited institutions only)

*National Occupational Classification

This data is collected from the 521 institutions registered with PCTIA, just over 200 of which are 'accredited institutions' (i.e. subject to a regular evaluation against quality

assurance standards set by the Agency). Currently, there are approximately 66,500 enrolments each year in private sector post-secondary institutions in BC. Of these enrolments, some 32,400 are to be found in accredited institutions.[3]

In 2006 PCTIA began a two-phase project aimed at establishing a computer-based enrolment reporting system. The electronic reporting of data is now in place, and at the direction of the Ministry of Advanced Education, the second phase of the project will concentrate on quality assurance issues. The agency is committed to focusing on student mobility issues; however, it is likely that it will be able to devote only limited resources to any pilot project proposed by this study – at least during 2007.

MOE/PEN

The Personal Education Number (PEN), collected by the Ministry of Education (MOE), is a nine-digit number assigned by the MOE to each student as they enter the British Columbia public education system. This identification number follows the student as they progress through the K-12 (for schools under both the School Act and the Independent School Act) and the public post-secondary education systems. Post-secondary students arriving from other jurisdictions are also assigned a PEN when they first enrol in a public sector college or university. The core record is maintained by the Ministry and is matched to student data held by the post-secondary institution several times a year. Each institution is expected to apply PEN data standards to a number of student descriptors in order to maintain the integrity of the PEN system. The PEN data standards are applied to:

- The institution's own unique identification number of each of its students;
- Student's first name;
- Student's second given name;
- His/her surname;
- Student's PEN;
- Student's gender;
- Birth date; and
- The postal code of the student's permanent residence or their last known postal code.

It should be noted that the current School Act (1999) excludes private post-secondary institutions from the PEN system (Section 170.2 (1) of the Act). However, recent legislative changes introduced into the BC Legislature in March 2007 will allow government to require that private post-secondary institutions' student data include PENs. Probably, this will be achieved through a phased-in approach, starting with institutions authorized to grant degrees under the *Degree Authorization Act* and eventually extending to private trainers regulated by PCTIA. Because PENs are the unique identifier that has made it possible for the STP to conduct its student transitions research within the public education system, the extension of PENs, albeit in stages, to private institutions is crucial to the ability to do private/public mobility research.

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[3] Private Career Training Institution Enrolment in British Columbia: A Sector Report for the Year 2006. PCTIA: Vancouver, BC. June, 2007.

<u>**CDW**</u>

The Ministry of Advanced Education's Post-Secondary Central Data Warehouse (CDW) system requires all participating institutions (all community colleges, institutes, university colleges and Thompson Rivers University) to submit data to meet both its requirements and those of Statistics Canada's Enhanced Student Information System (ESIS). The CDW contains standardized data relating to student demographics, programs, credentials, courses, session registration and campuses for 21 public institutions in BC. The data are updated twice a year in May and October. Student names are not contained in the data warehouse, and the identities and Personal Education Numbers are encrypted so that individual students cannot be identified.

The CDW system contains about 100 data elements; however, for the purposes of this study only 43 have been deemed relevant.[4] The relevant data sets have been clustered into a number of data categories for the purposes of this study:

- **Institution identifiers**, including campus locations;
- **Program information**, including name, Classification of Instructional Program designation (CIP), credential type, funding source, duration, etc.;
- **Program level enrolment**, including credential type and discipline;
- **Course information**, including course title, duration, credit value, section number, capacity, duration, etc.;
- **Course level enrolment data**, including the semester/session, student achievement, course registration information, the credential being sought, and a number of fields dealing with student characteristics; and
- **Student Personal Information**, comprising PEN data and the date and status of the student's high school graduation (note that unencrypted PENs are available for approved research projects).

<u>**TUPC**</u>

As has been indicated above, the Province's public sector universities are not subject to the CDW.[5] Instead, the universities provide aggregated data to the Ministry of Advanced Education through The University Presidents' Council (TUPC). The Universities Database (TUDbase) holds annualized data by university, on headcounts, FTEs, Equivalent Enrolments Taught (EETs),[6] credentials awarded, and international enrolments, financial data, and information on faculty.[7]

TUPC gathers raw data from the participating institutions in March, August, October and December of each year (with the exception of Royal Roads University which only reports once at the end of each academic year). TUPC then aggregates the data. However, the

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[4] Full details of the CDW data elements can be found at http://www.aved.gov.bc.ca/datawarehouse/

[5] The exception to this rule is Thompson Rivers University which remained in the CDW framework as the institution transitioned from university college to university status.

[6] EETs are collected at the Faculty level and provide a measure of the instructional load provided by each Faculty

[7] It should be remembered that private sector universities are not affiliated with TUPC.

organization faces a number of challenges arising from the autonomous nature of its member institutions. For a variety of reasons not all universities have been able to adhere to the schedule submission dates or to the prescribed data definitions. As a consequence, the data reported by TUPC is not often comparable to that found in the CDW or the PCTIA databases. In addition, reporting is not usually at the program level while students are enrolled in university; rather, students are categorized by faculty (and sometimes department) within individual universities – but these categorizations are not consistent across institutions, therefore they are impossible to apply to system-wide figures. Finally, at the time of writing, no student-level data is contained or maintained in TUPC databases. TUPC's data manager receives aggregated data from the universities in a form that allows for system-level reporting only.

For the purposes of this study a sub-set of TUPC data elements has been identified as being relevant:

- **Institution identifier** (university abbreviation)
- **Program information**, including program type (general, professional, health sciences), degree type (undergraduate, graduate, diploma/certificate) and name, faculty/department, upper or lower level, FTE and headcount.
- **Program level enrolment**, comprising program type (general, professional, health sciences), degree type (undergraduate, graduate, diploma/certificate) and name, faculty/department, FTE, and headcount.

It should be noted that issues surrounding the consistency of university data are being addressed through the involvement of universities in the STP. And, indeed, the set of data elements that has been agreed to by universities for reporting to the STP in May and October could form the basis for required data for private/public student mobility research. The data submitted to STP will include the PEN.

SABC

Student Aid BC (SABC) has hundreds of fields in its data warehouse; however, only a few are relevant to this study:

- **Institution identifier**, including the institution's name and province;
- **Private institution identifiers**, comprising the type of institution, and whether or not it is an out of province organization;
- **Program information**, including program type and duration; and
- **Student personal information**, comprising Social Insurance Number, gender, first given name, surname, birth date, city of residence, postal code, and a unique student identifier generated by SABC.

While SABC does not presently collect PEN data, PENs could be collected by this agency with the addition of two extra fields to its data base. The adjustments would require the collection of the student's middle name and the adjustment of the SABC unique student identifier to meet PEN field characteristics (this field would mirror the institutional student identifier used by the PEN). Indeed, there are indications that this adjustment will be in place by 2009. It is significant that the same legislation introduced

in March 2007 that will require that private post-secondary institutions' student data include PENS will also allow student financial assistance data to include PENs.

STP

In order to systematize the collection of data from all partners in the Student Transitions Project (STP), a set of data elements has been agreed to by public post-secondary institutions for submission twice a year, in May and October. As will be discussed later, these data elements could form the basis for a system designed to map student movement from private to public institutions. As can be seen in the following table, the common data elements form the basis for an effective and efficient system of tracking student mobility between high schools and public and private institutions offering university courses and programs. The two apparent discrepancies in the table below – the MIN Start Date and the Faculty listing in the university data set – are easily resolved and present minimal challenges. These discrepancies are driven by the fact that university students do not normally choose a faculty until later in their course of study and are only finally assigned to a particular program upon completion of their studies.

Table 2: STP Data Elements

CENTRAL DATA WAREHOUSE	UNIVERSITIES
INSTITUTION IDENTIFIER	
PSI Type	PSI Type
PSI Code	PSI Code
PSI Full Name	PSI Full Name
PROGRAM INFORMATION	
School Year	MIN Start Date
Program Type	Faculty
	Program Type
Award Year	Award Year
Credential category	Credential category
Credential level	Credential level
STUDENT PERSONAL INFORMATION	
PEN	PEN
PSI Student Number	PSI Student Number
Birth date	Birth date
Gender	Gender
Postal Code Current	Postal Code Current
Postal Code Permanent	Postal Code Permanent

Program Code Use

Any efficient system for tracking student mobility must have the ability to follow student progress through a particular program taken at two or more institutions or to follow the student as he or she moves from program to program and institution to institution over

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time. Obviously, it is preferable that all institutions use the same program code structure – in Canada's case, either the Classification of Instructional Program (CIP)[8] or the National Occupational Classification (NOC)[9] systems. Alternatively, algorithms need to be developed to standardize reporting of program codes in summary documents. This study has found that, unfortunately, there is a mix of practices with respect to program code use:

PCTIA	PEN	CDW	TUPC	SABC	STP
NOC	n/a	CIP	CIP	In-house	CIP*

* Only for CDW data

The province's public universities (with the exception of Thompson Rivers University which is part of the CDW system) tend not to use CIP or NOC codes because their students are enrolled in faculties rather than programs and because students take significant portions of their programs outside of the 'home' faculty. Having said that, TUPC does apply 6-digit CIP codes at the student level but does so after students have graduated. The CIP is assigned on the basis of the major in the credential awarded, or, in the case of a double major, on the first major cited.

Obviously, the PEN system has no need for program codes of any kind and, while SABC does use program codes, it has developed an in-house system. However, there is a possibility that SABC will have adopted the CIP coding by 2009.

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[8] http://www.statcan.ca/english/Subjects/Standard/instruction/cip-2000-intro.htm
[9] http://www23.hrdc-drhc.gc.ca/2001/e/generic/welcome.shtml#about

STUDENT MOBILITY TRACKING: THE CHALLENGES

Introduction

As has been suggested already, little is known about the movement of students between the private and public post-secondary sectors. Moreover, there is only sketchy anecdotal evidence that there is indeed a demand for such mobility. This section focuses, primarily, on the challenges facing any attempt to develop a relatively simple approach to tracking student mobility between the two sectors. Such an approach would be designed to track student movements without any reference to transfer arrangements or course and program articulation between the two sectors. It would simply identify that Student A had moved to College W in Program X and had previously been enrolled in College Y and Program Z. And, of course, the institutions would be flagged according to their public or private status.

Data Structure Diversity

Not surprisingly, given the differing mandates, modes of operation, and organizational structures involved, there is a significant variation between the five discrete data sets. Even with a data element as simple as 'institution identifier' there are small but significant differences:

PCTIA
INSTITUTION.INS_NUM
INSTITUTION.INS_NAME

PEN
INSTITUTION_CODE
INSTITUTION_NAME

CDW
INSTITUTION
NAME

TUPC
UNIVERSITY NAME (ABBR)

SABC
INSTITUTION_CODE
INSTITUTION_NAME
INSTITUTION_PROVINCE

More complex data clusters carry with them even more variation; the 'program information' cluster is a case in point:

TUPC

UNIVERSITY NAME (ABBR)

PROG. TYPE: GENERAL

PROG. TYPE: PROFESSIONAL

PROG. TYPE: HEALTH SCIENCES

DEGREE TYPE - UNDERGRAD, GRAD. DIPL/CERT

FACULTY OR DEPARTMENT

CREDENTIAL ABBR.

CREDENTIAL NAME

LEVEL: UPPER YEARS

LEVEL: YEARS 1&2

LEVEL: NULL

WEIGHT: RANGE 1.0 TO 6.0 INCLUSIVE

FTE (BASED ON EET)

HEADCOUNT

SABC

PROGRAM_CODE

PROGRAM_LENGTH_YEARS

PROGRAM_TYPE

PEN

N/A

PCTIA

PROGRAM.PRG_ID,

PROGRAM.PRG_DT,

PROGRAM.PRG_USER,

PROGRAM.PRG_CODE (CIP code)

PROGRAM.PRG_NAME,

PROGRAM.PRG_DURATION,

PROGRAM.PRG_DURATION_AMT,

PROGRAM.PRG_MULT_YEAR_LEN,

PROGRAM.PRG_TYPE_1,

PROGRAM.PRG_TYPE_2,

PROGRAM.PRG_OTHER_TYPE,

PROGRAM.PRG_ITA_DESIG,

PROGRAM.PRG_NOC_CODE,

CDW

INSTITUTION

CODE

EFF_DATE

END_DATE

TITLE

DESCRIPTION

DELIVERY_CODE

EXPECTED_COMPLETION_TIME

EXPECTED_COMPLETION_UNIT

CIP

FUNDING SOURCE

CREDENTIAL TYPE

PROGRAM_GRADUATION_CREDIT

PROGRAM_GRADUATION_CREDIT_UNIT

FTE_DIVISOR

FTE_DIVISOR_UNIT

PROGRAM ENTRANCE REQUIREMENT

CIP DESCRIPTION

Clearly, any student mobility system that involves the private sector would have to include agreements on standardized approaches to institution coding. Furthermore, efforts would have to be made to either minimize the need for data element modification on the part of each organization or to keep the translation algorithms as simple as possible. The work being done by STP regarding the submission of common data elements may be instructive in this regard.

Data Collection Frequency

Any student mobility study involving the private post-secondary sector would require the coordination of data collection timing among the players involved. The following table summarizes the data collection frequency and timing:

PCTIA	PEN	CDW	TUPC	SABC	STP
November	Continuous	May, October	March, August, October, December	Continuous	May, October

The simplest approach would involve one collection point a year in which data for the entire year was available for comparison across sectors. An alternate approach would be to require data twice a year in May and October, which coincides with STP and CDW reporting timelines, the former already adhered to by all public post-secondary institutions and the latter adhered to by colleges, university colleges, institutes, and one university. Collecting data twice a year would, however, require a change in PCTIA's data collection practices.

Institutional/Sectoral Issues

Projects involving multiple players frequently face challenges arising out of the differing modes of operation and cultures of the participating organizations. A project aimed at tracking student mobility between the public and private post-secondary sectors would be no exception. Any attempt to collect data from both sectors should have as one of its key principles that the data collection would require the least possible amount of additional work on the part of institutions and data collection organizations. Making use of the STP data elements and reporting system would minimize additional work for public institutions; however, it is likely that private institutions and PCTIA may have more work to do to comply with data requests because they are just beginning to submit and collect data.

Private sector institutions probably would also be concerned about the additional costs associated with increased data collection and processing. Accordingly, it would be wise to be very clear about the value of such data to these organizations. As for the public universities, they operate as autonomous organizations. As such, each university has developed its own way of collecting, coding and processing student data. TUPC's role often involves making sense of somewhat dissimilar data sets and aggregating the data at a relatively coarse level. Again, making use of the existing data elements and reporting timelines of the STP would minimize additional workload and ensure uniformity in data submitted from each university.

Program Length Definitions and Credit Values

While there may be broad general consensus in the public post-secondary education sector about the amount of instruction involved in, and the credit value of, certificate, diploma, undergraduate degree and post-graduate degrees, certificates and diplomas,

there is no such consensus in the private sector. This is not necessarily an impediment to the simple tracking of student mobility from one sector to the other. It is, however, a significant impediment to the ability of students to move easily from the private to the public jurisdiction. Clearly, if student mobility between the private and public sectors is seen as being valuable then standardization of program length and definitions and credit values must be addressed (along with associated standardization of academic quality) by PCTIA and its member agencies.

PEN Use Restricted to Public Sector

As has been indicated earlier, the Provincial Education Number (PEN) is restricted in use to public sector schools and post-secondary institutions and to schools designated under the Independent School Act. The current inability of the majority of private sector post-secondary institutions to use the PEN system places a major roadblock in the way of any attempts to track student mobility across the boundary between the private and public sectors. While this situation is beginning to be addressed by the introduction of legislation to extend the use of PENs to private institutions, the resulting staged approach to the extension of PEN usage will mean that it could be years before significant numbers of private institutions have PENs as part of their student data.

In the short term, the extension of PEN use to private sector degree programs approved by DQAB will mean that a comprehensive process for tracking inter-sectoral student mobility among degree programs could be achieved. Manifestly, however, this is not the case in the realm of sub-degree certificate and diploma programs. Is there, then, an alternative, interim approach that would yield useful data? One approach would be to develop a pilot project that focuses on a limited number of certificate and diploma programs at a sample of private institutions. Student mobility could be tracked by matching first name, last name, gender, program and year. Unfortunately, given the lack of a unique student identifier, once a possible name and gender match was found the rest of the operation would involve manual checking. Details of this option are discussed at length in the section (below) entitled: Next Steps: A Pilot Project.

Another solution may lie in working with PCTIA to identify those private institutions with programs from which students are likely to want to transfer to the public sector. Once a volunteer group is identified attempts could be made to obtain the cooperation of the Ministries of Education and Advanced Education to have the PEN extended to students in only those programs. This selective application of the PEN could be run as a pilot project whose aim would be to both determine the extent of student mobility between the two sectors and to provide PCTIA with a more manageable roll-out of a sector-wide use of the PEN.

NOC vs. CIP

PCTIA's use of the National Occupational Classification (NOC) system is highly functional for the agency and for the majority of its members since most private post-secondary institutions are involved in vocational preparation. However, for the purposes of tracking student mobility across programs and/or institutions it is not particularly useful. The NOC's focus on occupational information does not match well with the

course and program information required for effective tracking of student mobility, especially outside of the strictly vocational kinds of programming. However, the Classification of Instructional Program (CIP) system is highly functional for such purposes and, of course, is used by both TUPC and the CDW (even Student Aid BC is reported to be considering moving to the use of CIP by 2009). It is interesting to note, also, that the CIP has been adopted by Statistics Canada as its national standard for reporting instructional program enrolments.

The CIP does have some drawbacks, however. These drawbacks are especially related to the tracking of student mobility through undergraduate studies since university students may not have to declare a major until the beginning of the third year of studies. This could, potentially, lead to a one or two year gap in student mobility records. These limitations may not be easily remedied and would probably have to be accepted as one of the flaws in any student mobility tracking system. Having said that, work has been done by the Outcomes Working Group for the College and Institute Student Outcomes survey, (later refined by BCCAT for its Education Planner website), to build crosswalks between CIPs and NOCs. It may be worth exploring whether these crosswalks could form the basis of efforts to marry CIPs and NOCs for private/public student mobility research.

Public/Private Sector Course Stability and Credit Structure

Many private sector post-secondary institutions must respond quickly to the dynamics of the workplace and make consequent frequent adjustments to their curricula. In contrast, the pace of curricula change in public sector institutions tends to be much slower. The two sectors also differ with respect to their use of course credits. While the notion of course credit permeates a significant portion of the public sector it is not widely used in career programs in the private sector. These structural differences will create challenges for any initiative aimed at achieving wider transferability of course credits from the private to the public sector and, hence, increased student mobility.

NEXT STEPS: A PILOT PROJECT

Introduction

As we have seen, two significant developments have occurred in the first quarter of 2007 with respect to the development of a project to track student mobility between the public and private post-secondary sectors. The first is the agreement, forged between the universities, the Ministry of Education (MOE), and the Ministry of Advanced Education – AVED – (representing Central Data Warehouse institutions) under the auspices of the Student Transitions Project (STP), to develop a set of fifteen data elements to be used to track inter-institutional student mobility between education systems and among post-secondary institutions. This agreement lays the foundation for an efficient, automated tracking system. Moreover, it has dealt effectively with many of the issues outlined in this document related to the complexity of data sets used by the various players and the frequency of data collection.

The second important development is the announcement that legislation has been introduced into the BC Legislature that will extend the use of the Personal Education Number (PEN) to, initially, those private sector institutions offering DQAB approved degree programs and, later, to a broader set of private post-secondary institutions. This development, coupled with the STP agreement on data elements, means that an efficient and effective system for student mobility tracking is at hand for degree-granting institutions. However, this is not the case in the area of sub-degree certificates and diplomas.

This section outlines a two-pronged approach to developing a student mobility tracking system that encompasses both the public and private post-secondary education sectors. One element of the pilot project would focus on degree programs while the second would deal with sub-degree certificates and diplomas. The eventual aim would be to meld both segments to create a system capable of tracking the movement of all students across the private and public post-secondary system as a whole. It should be noted that the estimated timelines for progress on the different stages of research are tentative and could change depending on the speed at which PENs are assigned to a broader set of private post-secondary institutions.

1. Degree-Granting Sector

At some point in the near future private sector institutions with either DQAB approved programs or with DQAB 'grandfathered' programs will be able to have PENs assigned by the Ministry of Education. Within this context it would be advisable for the implementation of an inter-sectoral student mobility tracking system to begin a consultative phase as soon as possible. Such a consultative phase would provide the private institutions with both an orientation to the PEN and to the STP data set and with time to adjust their data gathering systems to match the STP data elements. Given that

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the expansion of the PEN to the private sector institutions is imminent, the consultations should probably be held in the early Fall of 2007.

Once the DQAB approved institutions (or those in the Transfer System) have made the necessary adjustments to their data systems the project can be launched. One caution should be borne in mind, however. While both the CDW institutions and the universities are going to report historical data under the terms of the STP, it would unreasonable to expect the private sector degree granting institutions to report historical data in the STP format. While some private sector institutions may have the capacity and the will to reformat their historical data, many will not. Therefore, it should be recognized that the private sector's records will grow from a baseline of their first report using the STP protocols.

2. Sub-degree Programs

Two preliminary approaches could be taken to initiating student mobility tracking between the public and private sectors. Both involve the implementation of a pilot project as a precursor to the roll-out of a comprehensive tracking system.

COMPREHENSIVE PILOT PROJECT

As has been suggested earlier in this document, there is no indication when PEN usage will be extended to those private institutions offering sub-degree programs. Therefore, any inter-sectoral student mobility tracking system focusing on non-degree programs will have to include some element of manual analysis. Clearly, such a system would not be practicable if it encompassed all public and private sector institutions offering sub-degree programs. Hence, a pilot project is recommended which involves a sub-set of private institutions and programs, pending the extension of PEN usage to all private post-secondary institutions. A pilot project would provide an early indication of the volume of transfer activity and it would set the stage for the eventual sector-wide roll out of the PEN. Obviously, since the pilot project would be based on the STP data set, PCTIA's willingness to become involved in the project is key. However, such efforts would lay a firm foundation for future closer cooperation between the two sectors.

It is suggested that a pilot project would encompass the following steps:

Stage 1

Discussions should be opened with PCTIA regarding the potential for identifying a sample of (say) a dozen private sector institutions interested in participating in the pilot project. The volunteer target institutions would include those private institutions that already have bi-lateral articulation agreements (for example: Sprott-Shaw Community College, Arbutus College, West Coast College of Massage Therapy, Canadian Tourism College, etc.). Target institutions would also be drawn from institutions offering programs where the curriculum is likely to be comparable and where there is likely to be student interest in or demand for transfer of credit. This study has found that such disciplinary areas include:

- Commerce
- Early Childhood Education
- Counselling
- Tourism and Hospitality
- Arts and Media
- Health.

Note that it may well be useful to involve representatives of the BC Career Colleges Association in these discussions.

Stage 2

Once the volunteer private sector institutions are identified, PCTIA and designated institutions need to work with the STP group to standardize those of their data elements that correspond to the standard STP elements (this is the same process as outlined in the university segment of the pilot project). While the PEN data will not be collected until approval is received from the Ministry of Advanced Education under the new legislation, it would be useful (and efficient) for the private sector institutions involved to include the PEN data in this process.

The data collection frequency and timing also need to be agreed upon, although one collection point in the Fall of each year should be sufficient to begin with.

Stage 3

This stage would see the first round of data collection. BCCAT, in cooperation with PCTIA, could then electronically generate a report that identifies potential matches between the two systems based upon student name and gender. The potential matches, in the absence of PENs, would then have to be confirmed manually and the program-to-program mobility noted. This manual operation could be continued until PEN assignment has been expanded to a broader set of private institutions. Historical data would build over time beginning with Year 1 data.

Given that PCTIA's agreement needs to be sought and that the standardization of data elements will take time, it is likely that the first data collection event will have to be delayed until 2008.

Stage 4

Regular studies involving student mobility between all programs – both degree and sub-degree – could begin once:

a. PCTIA has developed a means for its institutions to submit student data on a regular basis that matches STP data elements and reporting timelines.
b. PEN usage has been extended to a sufficient number of private institutions offering sub-degree programs to make it worthwhile.

Postscript

As an adjunct to this part of the pilot project, PCTIA and the STP partners may wish to lobby the Ministries of Education and Advanced Education to accelerate the implementation of the PEN in only those private sector institutions that volunteer for this portion of the pilot project. This would have the benefit of overcoming the challenges of handling large amounts of data manually. It would also have the significant advantage of providing PCTIA with a phased approach to rolling out the PEN to all of its members. This approach would also have the advantage of enabling the phased melding of the two pilot projects. Over time, both sectors (and government) will be interested in determining the extent of inter-sectoral student mobility between degree and non-degree programs. The degree program portion of the pilot project should be reasonably well established by the end of Year 2. Permitting the sub-degree program pilot institutions to have access to PEN data would mean that it would be possible to track students engaged in inter-sectoral movement between degree and sub-degree programs after the second year of the proposed pilot project.

SIMPLIFIED PILOT PROJECT

As an initial step to having PCTIA and STP partner on the development of a comprehensive system of student mobility tracking the organizations may wish to consider implementing a stripped down and simplified pilot project. The Simplified Pilot Project would focus only on tracking movement of students between institutions – irrespective of program. By ignoring issues of credit and program type the public and private sector agencies could produce some useful data while building mutual understanding and problem solving systems. Focusing on headcounts only, the Simplified Pilot Project could start working with the group of private sector institutions identified in Stage 1 of the Comprehensive Pilot Project proposed above. Given the limited data gathering required by this approach, a relatively rapid implementation of the Simplified Pilot Project could be contemplated. Later, the more expansive data gathering envisioned in the Comprehensive Pilot Project could be rolled out.

APPENDICES

APPENDIX 1: Data Elements: Master Spreadsheet

NOTE: The Master Spreadsheet is only available in the electronic form of this report

APPENDIX 2:   Observations and Suggestions from Contractor to BCCAT

As the writer worked through this project a number of issues arose that were not directly related to the substance of the report but that, nevertheless, seemed important and needed to be aired. This conviction arose from a growing realization that it is in the best interests of the province's students and its economy that the public and private post-secondary sectors become better coordinated and integrated. Indeed, this theme has been explored in a variety of ways in Geoff Plant's recently published report - Campus 2020; Thinking Ahead.[1]

One area where there is an opportunity to strengthen the links between the public and private post-secondary sectors for the benefit of students is in the arena of credit transfer. Currently, BC's transfer system concerns itself largely with university level course transfer and, as such, encompasses a number of private sector universities and colleges. However, there are also many transfer arrangements in the realm of career, technical and vocational programs for institutions, both public and private, in the BC Transfer System and BCCAT is planning to further encourage these kinds of arrangements. Clearly, while such expanded transfer opportunities are not a *sine qua non* for a student mobility tracking system, they would greatly enhance the movement of students between the two sectors and would contribute significantly to the development of the province's human capital in coming decades. However, there are a number of challenges facing any attempt to broaden the opportunities for transfer of course credits between the public and private post-secondary sectors.

1. Course Credit Assignment

Because of the strong employment skill orientation of many private sector post-secondary institutions, their curricula must respond quickly to the dynamics of the workplace. In contrast, the curricula in public sector institutions often changes more slowly.   In addition, while the concept of course credit permeates a significant portion of the public sector it is not widely used in private sector career programs. These structural differences will create challenges for any initiative aimed at achieving wider transferability of course credits from the private to the public sector and, hence, increased student mobility. Since such transfer agreements are the fundamental enabler of inter-institutional student mobility, a solution will have to be found which satisfies both post-secondary education sectors. Such a solution will have to strike a balance between the need to maintain the private sector's flexibility to respond quickly to changes in the workplace and the needs of the public sector for assurances of both program quality and adequate student preparation for further study.

However, one way of overcoming the differences in practice and terminology is to adopt 'block transfer' agreements.   Several of these agreements are already in existence between public and private institutions but, because the private institutions are not part of

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[1] http://www.aved.gov.bc.ca/campus2020/

the BC Transfer System, the agreements are not currently recorded in the BC Transfer Guide. Examples of such bi-lateral agreements include those between:

- Arbutus College and Royal Roads University;
- West Coast College of Massage Therapy and Kwantlen University College;
- Canadian Tourism College and Vancouver Community College, Douglas College and Selkirk College; and
- Vancouver Premier College of Hotel Management and Douglas College, Capilano College, and Royal Roads University.

2. Standardized Course Outlines

One of the foundational practices of the credit transfer system is the commitment by faculty and their institutions to the creation and maintenance of standard, comprehensive course outlines. These course outlines become a form of contract with the student and provide an overview of the knowledge and skills to be gained. They also form the basis for the articulation agreements that ensure credit transfer. Currently, a majority of the private post-secondary career institutions are not actively involved in the creation and maintenance of standardized course outlines. Obviously, if a comprehensive approach to student mobility between the two post-secondary sectors is to emerge then this issue needs to be addressed by PCTIA and its members.[2]

3. Terminological Differences

Public post-secondary institutions and many private post-secondary institutions differ, also, in the use of the terms 'semester', 'course' and 'credit' value. While these terms are common currency in the public sector, they are essentially meaningless in the many private sector contexts where instruction and skill development occurs throughout the year and in intensive sessions often lasting all day. And, with no impetus for course or program transfer the assignment of 'credit' is essentially a meaningless concept for the private sector. However, these are not insurmountable barriers.

Other solutions to bridging the gaps in practice between the two post-secondary systems will certainly be found – given a degree of flexibility on both parts. It is useful to remember that over the past two decades the public sector has become much more flexible in its approach to what is defined as a 'course' and has become quite accustomed to assigning credit in arenas well beyond the standard lecture-based, semester-length course. Distance delivery courses, cooperative education, special topics courses, service learning opportunities, project-based learning, the increasing use of practica and research experience as part of courses, and study abroad activities spring to mind in this context.

4. Quality Assurance Mechanisms

There is no question, given the recent developments with respect to PEN usage and the work performed by the STP, that a practicable approach to tracking current student mobility between the public and private sectors can be found. However, if the desire is to

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[2] BCCAT has developed a template for course outlines which may be useful in this context: http://www.bccat.bc.ca/outline/index.cfm

move beyond the status quo, to increase the opportunities for student mobility between the two sectors in order to support the development of the province's human capital, then there are barriers that need to be overcome which involve concerns on the part of the public sector institutions about the quality of instruction and curriculum content to be found in private sector institutions.

Having said that, there are private sector universities and colleges that have become part of the BC Transfer System. Currently, four private sector institutions are full participants in the system:

- Columbia College;
- Coquitlam College;
- Corpus Christi College; and
- Trinity Western University.

Several other institutions are designated "Program Members" and articulate specific programs within the Transfer System. These Program Members include:

- Alexander College;
- Fairleigh Dickinson University;
- Quest University;
- Sprott-Shaw Community College; and
- University Canada West.

Shortly, these five institutions will be joined by the University of Phoenix. (Lansbridge University was also a program member for a short period.)

However, there remain concerns in the public sector about quality assurance in private institutions, especially in the area of sub-degree programs. As we have seen in the previous section, several bi-lateral block transfer agreements are in place which focus on particular programs. These agreements are emblematic of the keen interest on the part of many private institutions to have their programs recognized for transfer credit by the public sector. Having said that, probably a majority of the private sector institutions are content with their traditional career college role and do not see the need for a bridge to public sector institutions. Nevertheless, given the dynamic nature of employment in a knowledge-based economy, with its attendant requirement to periodically develop new skills, it is likely that many graduates from the private sector would welcome the opportunity to have their prior learning recognized by public sector post-secondary institutions. What, then, are the mechanisms that need to be in place to allow for the transfer of credits from certificate or diploma programs into other sub-degree programs or into undergraduate programs (through, for example, laddering protocols)? And, how do we overcome some of the negative perceptions of the academic rigour found at some private institutions that are harboured by some in public sector post-secondary institutions?

As to the question of quality assurance mechanisms, it would be easy to posit a 'super accreditation process' that would be aimed at a limited number of private institutions and that would sit on top of PCTIA's existing accreditation process. However, it is likely that the private sector would baulk at such a proposal. Nevertheless, some enhancement of

the current quality assurance mechanisms, coupled with efforts to increase public sector awareness of the rigour of the PCTIA accreditation process, are clearly needed if enhanced credit transfer between the two systems is to become a reality.

PCTIA has about 520 Registered Institutions and approximately 200 Accredited Institutions on its roster. This latter group are subject to an independent review of their organizations and programs every five years. Moreover, every program change of any substance made by Accredited Institutions is also subject to review. Currently, the agency is concentrating on revamping its quality assurance mechanisms and this may present a means of addressing the negative perceptions held by some in the public sector institutions. Perhaps some way could be found of bringing together representatives from PCTIA and the BC Career College Association and from BCCAT and the BC public college system to examine the issue and make appropriate recommendations to PCTIA and for the BC Transfer System.