

# NOTES FROM A USER EXCHANGE ON LINK FILE ANALYSIS

FOR REVIEW

## PREPARED FOR:

**SIRI**  
and  
**B.C. Council on  
Admissions and Transfer**

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January 1995  
Doc. 94-18

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# Notes from a User Exchange on Link File Analysis

## Co-sponsored by SIRI and the B.C. Council on Admissions and Transfer

*Held November 3, 1994 at BCIT Campus.*

*Attendees: See Attachment 3.*

### 1) Purpose of the Day

Frank Gelin welcomed participants and explained that the purpose of the day was to assess the report prepared for Council by SIRI on Transfer Effectiveness.

### 2) Briefing by SIRI Analysts

Jean Gomes and Sophie Ducharme prepared the Council report. Their presentation is attached. Discussion ensued. Main points:

SFU's semester based admissions muck up the perspectives on first time enrolments presented in the Council report. Walter W. noted, for instance, that SFU's admissions of college transfers in Spring and Summer are larger than in Fall.

- some consensus that the research community needs to re-think the wisdom of limiting our views of admissions, enrolments, and flows to Fall. Some argued that the notion of B.C.'s colleges and universities as 'Winter institutions' no longer holds. Bob Cowin suggested that the

research community is still carrying old conceptual models of how the system works. Douglas is boosting its summer intakes. The MSTL has issued an edict calling for improved space utilization which will further push institutions to boost their enrolments in non-traditional sessions.

- some confusion over how 'academic students' are defined for purposes of the report, and further confusion over how they should be defined. John C. noted that the report defines academic students as those who colleges have assigned an academic program code to on the sessional Link File records. These are the equivalent of those who would normally show as academic students on the colleges' FTE enrolment audits (pending any re-codes made in the course of submitting those reports). Extended discussion of inconsistent institutional coding (and re-coding) practices used for FTE enrolment reporting. Potential solutions identified:
- define as 'academic students' those who've earned 15 academic credits or more (problem with this is that it would prevent reconciliations to where funding for academic spaces is going).
- define them based on intentions to transfer (problem is that many don't know their intentions or change their intentions; also, this would again preclude tracking of enrolments created via funded academic student spaces)

### 3) Briefing by Key Users

John Dennison summarized his priorities for analyses like those contained in the report prepared by SIRI for Council:

- accurate data that's perceived to be accurate
- timely data

- analyses of those data summarized in a technical report
- translation of those analyses into meaningful, relevant information for significant decision makers
- care in the questions asked

He noted that Council's long term focus is on what questions it wants answered and how the answers will make a difference. In this, he suggested that transfer rates, per se, are not an important issue. The key is whether or not transferees have an equitable chance at earning a degree.

POST-MEETING NOTATION: John D's initial shot at developing key questions arising from the BCCAT report is attached (please see Attachment 1), for information. Council has asked that, as a first next step, SIRI answer these from the analyses that have already been completed.

Walter Wattamaniuk provided his reactions to the BCCAT report from the perspective of related analyses done for the MSTL's Enrolment Management Committee:

- the academic enterprise is a system. It accounts for roughly half of the \$1 billion post-secondary budget in B.C.
- the system faces a supply management problem. Universities are rationing admissions. They're using predictors of academic success as the basis for doing so. Admissions GPA's are rising as a result. Colleges are rationing courses. Within colleges, there are a limited number of courses that can be taught and are getting more admitted students competing for the courses that are available. This may impede progress to degrees.
- the EMC went looking for evidence of a balanced system in terms of the availability of 1st, 2nd, 3rd, and 4th year courses and found that it wasn't

balanced; a high proportion of the system resources are going into 1st year courses, especially at colleges

- the research community is taking (through the BCCAT and EMC reports) its first hesitant steps in identifying who the academic consumers are and what they consume.
- Induced course load matrices created for those reports are a significant step. They show that academic course demand is affected by Career program enrolments.

Walter identified the unanswered questions that arise, for him, from these analyses:

- do academic courses taken by non-transferees represent a good investment (% completing full year of studies; % completing two full years of study; elapsed time to completion of first full year)
- % of academic resources consumed by those who complete some credits and leave. Who are these leavers (failures? others?). Do they go on to earn diplomas or certificates?
- are academically deserving students able to get courses that they need and do so efficiently?
- why are college transfers going into Arts and Education and not Sciences?

Discussion ensued. Dan Cram raised concerns about the precision of the linkage mechanism now being used. He noted that links are only occurring where SIRI is assured that the records from institution 'A' and institution 'B' are for the same student. This has the effect of understating transition rates, particularly for institutions that are not providing SIN's or PEID's in their Link File data submissions. Darryl Hammond noted that the MOE has addressed this problem in their own records system through probabilistic

linkages and that these same procedures are now being imported to the Link File. He indicated that, from MOE experience, there may be 15-20% more record linkages with probabilistic links. John C. and Darryl both noted the importance of having SIN's in the Link File to track migrations across the system. Confusion noted re: the legality of collecting SIN's and supplying them to the Link File. John noted that it can be done in compliance with federal and provincial statutes but requires specific notifications that, so far, have not been implemented. An issue for the Link File Management Committee to pick up.

POST-MEETING NOTATION: probabilistic linkages was first advocated three years ago. The concern, then, was that there was no way of representing the comparative quality of published data in Link File tables. Probabilistic linkages would enable those kinds of estimates to be made and published. As it stands, the assumption is that if data are released, they must be equally precise. They are not. Users should note that, for certain traditional transition routes (such as college academic to university or school to university) SIRI anticipates that the effects of probabilistic linkages will be minimal (they won't change the published transition rates very much). A bigger impact is anticipated along other transition paths where Grade 12 records have not been used to determine student admissions (eg Grade 12 to college) .

#### 4) Focus Group in the Groupware Lab

We retired to the Groupware lab for an hour to review the morning's discussion and identify, from the users' perspectives, the key issues that arise. They identified four broad types of issues:

- policy issues (need to debate key system conditions and identify initiatives that might improve those conditions)
- technical issues (need to clarify and tune how conditions defined and analyzed) . Participants emphasized, here, issues pertinent to improving their understanding of how the academic enterprise works, and how it is



changing. These include 'definitions' and 'technical issues'. They also include some specific technical issues raised by participants: types of transfers, transfer rates, predictors of academic success and completions.

- data integrity issues (need to improve users' comfort with the quality of their own data and the linked versions of it contained in the Link File)
- focus (need to clarify who are the clients/audiences, what form should reports answering their questions take)

For the verbatim comments made by participants in this part of the workshop, see Attachment 2. They are comments recorded by the Groupware software and classified by the focus group participants

## 5) Roundtable Discussions

The group then broke into two roundtable discussion groups. Two issues: what to do with report Council currently has, and priorities arising from the workshop today.

Walter W. reported these conclusions from his roundtable:

- report should go as is to BCCAT
- format of the report is not liked because it does not directly address important policy issues and it needs to
- reports need to identify if the system is improving or not (this requires performance indicators displayed as trends)

- the prose in the report needs to more fully discuss the limitations and impacts of missing links
- next time the format should change and a process is needed to specify those format changes. In its next iteration, it should deliver the accountability measures that the Council Chair needs in dealings with the Deputy and the data that articulation committees need

Dan C. reported these conclusions from his roundtable:

- the product of Council analysis should show the kinds of students served, who leaves, and of those who leave how well do they do
- the data cycle (standards, definitions, linkages) needs improving and there should be an advisory group to develop the specifications
- need a formalized process for red flagging, conclusions review, formats, and determining the releasability of findings
- OLA data may be contaminating perspectives of college retention by as much as 15-20%
- there are too many opportunities in the current report for misinterpretations. It requires less ambiguity.
- the report needs to be less declarative in its findings. It should estimate the magnitude of error introduced by the state of college data and not come off like “unchallengable truth”.

## 6) Post-Meeting Actions Arising

(DRAFT OF NOVEMBER 16, PREPARED BY SIRI)

- clarify key questions that Council needs to answer each year, the audiences Council intends to reach with the answers, the details needed to reach those audiences (ie system totals, institutional details, faculty details, and/or course details), and the balance to be struck between producing and analyzing data in presenting those results.
- need for improved record linkages via probabilistic linkages and improved supply of linkage data from institutions (eg SIN's)
- need for improved data on college completions (without this, analyses of college retention will continue to be incomplete)
- need to add to the Link File a college admissions segment that captures the Basis of Admission of all students entering college for the first time and the credits awarded for advanced standing upon admission. As new destinations are created (BCIT degrees, university colleges, UNBC) new admissions policies and practices will emerge as will new pressures to transfer credits. Council needs to assess with college registrars the changed record keeping practices required to document: (a) the numbers being admitted under what admissions criteria; and (b) the specific post-secondary credits for which transfer credit is being awarded upon admission.
- need to integrate data handling practices. An example? Integrate the advent of a college admissions segment in the Link File with the work of the applications centre.

- need to improve and integrate efforts to standardize data that will be exchanged electronically. An example? Use of EDI standards in processing applications, need for added integrity in the use of those standards (eg standardizing Fields of Study) and warehousing those data and standards as adjuncts to the Link File.
- need for electronic transfer guides, matched against the Link File, that identify where course credits can be transferred to. This becomes important if Council wants to gauge not only where credits are being transferred, but also how this compares to where they are officially permitted to transfer.

## Attachment 1: John Dennison's 20 Questions Arising from the BCCAT Report

1. Over the last 8-year cycle (1983-91) how many students enrolled as first time undergraduates at the universities -- from high school, from colleges/institutes, from OLA, from other universities, from other sources?
2. Of the college/institute transfers, how many were eligible/ineligible for university entrance, based on high school grades?
3. Of the college/institute transfers (1985-90), how many (eligible/ineligible) obtained degrees, in which faculties and how long after admittance to university?
4. What were the GPAs earned by college transfers in the 1st and 2nd years after transfer, by college, by faculty entered (where numbers warrant, ie  $\geq 10$ )?
5. For #3 and #4, what are the comparable figures from direct entry students?
6. How many students transferred from universities to college/institutes, with degrees completed and without degrees (particularly, how many entered BCIT)?
7. What are the retention/attrition rates by college transfers (ineligible/eligible) in their 1st and 2nd years at university?
8. How many students from "outside" colleges transferred into university-colleges at the 2nd and 3rd year levels?

9. What are the transfer rates over the past 3 years from university-colleges to universities?
10. How many students have met requirements for AA and ASc degrees in the past 2 years by college attended?
11. How many students classified as mature (ie no high school GPA) entered college transfer programs over the past 5 years? How many eventually transferred to university and what were their earned GPAs and retention rates in the first 2 years after transfer?
12. How many students at university-colleges have earned degrees in the past 2 years? What were their final GPAs?
13. How many students (by college) transferred from academic to career programs in colleges in the past 5 years?
14. What is the probability of a direct entry student earning a degree in 4, 5, 6 or 7 years?
15. What are the comparable figures for #14 by college transfers?
16. What percentage of students who entered college academic programs in the past 5 years have completed 2 full years of study?
17. What percentage of students who entered career programs in colleges and institutes in the past 5 years have earned diplomas (or completed all program requirements)?
18. What is the profile of students enrolling in Open University and Open College programs during the past 5 years (ie how many high school graduates, mature, etc.)?

19. What is the degree completion rates in Open University programs over the past 5 years? How many graduates were originally eligible/ineligible to be admitted to “conventional” universities?
  
20. How many students have been enroled concurrently in a college and a university over the past 5 years?

## Attachment 2: Verbatim Notes Groupware Lab Focus Group

### Policy Issues

Is the issue of transfer in important issue for system accountability?

What is the "so what" ??? What, if anything will be done, and by whom?

What are the critical objectives involved? That is, what are the specific issues of importance? This is essential since all matters relating to quantification, cost effectiveness and most importantly efficacy are contingent on the initial perspective.

Increasing proportion of college resources (as measured by registrations) being given over to academic programs/divisions

Increase in lower level academic courses

Do those transferring from other institutions move through the system in a more "efficient" manner.

Are those transferring from institution to institution able to access further training regardless of where and what program they choose to continue with.

What affect has the increased admission criteria of universities (GPA) had on the number of college transfers? and their success rate? Do college transfers with lower GPAs do as well as transferees with a higher GPA?

Why are students taking longer within the college system?



How much does it cost annually to keep the Link file running and what would happen if funds were not provided for it to continue? Who would own the data, how would it be accessed, etc?

The potential systematic error introduced by non-linking to groups for whom equitable access / transfer may be an issue (i.e. women, ethnic groups, mature students)

The first-year college academic "explosion":

What happens to those not going further? I.E., What is the return to the student in academic terms? ...in labour market terms?

In view of the growing convergence of a wide range of authorities on the nature of the skill sets most likely to be needed in the "new world of work"-- stressing the ability to read critically, to write clearly, to compute accurately, to work cooperatively, and so on--how sure are we that resource allocation that has apparently met the first-year college academic "explosion" is not optimal?

Are the resources we expend on first year academic courses being utilized effectively?

How do we account for those students who transferred out of B.C. systems to universities in other provinces or states?

What 'weight' will this information be given in policy making? How do we ensure that all players in this shared data initiative will continue to play IF the results of sharing the data means they 'lose'.

Mechanisms to establish system coherence within representative institutional identity

Context. Too often data is related in isolation and the reader is left to highlight the underlying limitations, based on previous experience etc. on their own. While the reader ought to embrace this function (ie never assume face validity), unless the report provides a common set of assumptions used in the analysis the conclusions and resultant policy implications are not likely to be consistent in nature. Good policy based on bad data will likely result in poor outcomes. The problem is that the policy will have the appearance of scientific rigour that is simply not valid.

John Cousineau stated earlier that we don't know the "reality" of conditions around transfer and student flows. I don't agree. If we inform ourselves with existing research and everyday experience, it becomes evident that students do not progress through the system in a linear fashion, that the transfer phenomenon is multidimensional, and that the post-secondary system is in flux. John Dennison's questions reflect the dynamic nature of the system and the people within it. Reports on transfer must start from "reality" in a dynamic sense, and not persist in reifying nonexistent patterns of student flow.

We need to include a post-secondary education number

I do not expect SIRI, or anyone else, to define the role of "efficiency" as it relates to my mandate and objectives. What I do expect is relatively free access to timely data that I determine, for my purposes, is relevant. Access is critical since without it no discussion on appropriate methodology is possible.

Should transfer be linked to the movement of students in to the labour market. More and more students are attending school and working at the same time. GPA's are significantly different for students who work full time and study and those who work part-time or not work and attend a pse institution.

How can we reconcile institutional autonomy in course/program of study descriptions and other matters with the increasing need to demonstrate the

quality of the stewardship we offer vis-à-vis the resources entrusted to us...in our particular institutions? for the post-secondary system as a whole?

What is the total level of education consumed by students during their course of study (to completion) and is this any different for those who have transferred vs. direct entries

Inter-university transfers is considerable - 1000 each year (figure 6). We should better understand this group of students. Why do they transfer? How well do they do?

Do students who choose to go into academic studies have equal access to degree completion programs whether they go via college or enter university(college) directly

We need a unique ID # if the current SIN and exam IDs are not being well used. Use of the PEN should be pursued.

The BCCAT is a council to study admissions and transfers ... not to study academic admissions and transfers. How do we get the council to look at the whole system, particularly the part that is quite large? Do they become more mission based? Who do they vet their studies through?

Why not determine admission to degree completion programs in 3/4 year by having examinations after completion of second year for both direct entry and college transfer students? this will ensure a level playing field.

A valid point was raised this morning about the need to couch our research and data needs within some sort of framework which is built around clearly defined policy questions.

Data on OLA should not be included with data on the colleges. To do so seriously skews the college averages. In almost every case, OLA is an outlier.

Good start but forget trying to build a system that will answer all questions of all parties. There are too many players and the topical issues that are "need to know" is transient over time. Rather, give a process which allows for independent relational analysis.

With the BCPAS (Application Centre) coming on line next year, we have a good opportunity to use common identifiers that will improve our linkages. Policy level decisions now will improve our data a few years from now.

How can these reports be used to encourage the pse decision makers to recognize differences in institutional data reporting and move towards standardization and institutional comparisons.

With a new focus on non-academic programs, new forms of program delivery, and utilization of facilities during summers, weekends etc., measurement of students in non-traditional forms of learning and their movement through the system, and relative success will be necessary to determine the impacts of these policies

More emphasis on career\tech\vocational programs.

More attention to career\tech\vocational programs.

We don't have a strong enough provincial commitment to the value of collecting and analyzing data for policy making. How can this be changed?

I think SIRI should be funded about double what it's current funding is, that their technical problems should be kept in house, and we should only see their output ... not their problems. We've all got problems.

Very shortly, many institutions will be implementing new data systems - now is the time to push for standardization!

The "milling around" by students in college may be a result of resource limitations. The first time student taking whatever is available? Also, it may be a result of the failure of students to decide what their goals are. Perhaps "milling around" is not a good term because the colleges are supplying a service by allowing students to spend time to experiment.

The low transfer rate for Science is perhaps not so much a transfer problem as a more general problem with Sciences in the colleges. Is the problem the type of science student the college attracts, the low volume of science enrolment which prohibits the interesting range of courses a university can offer in first and second year, funding levels for science programs in the colleges which provide a disincentive to expansion, or ????

Institutions should be allowed to access raw data they submitted and do further analysis.

We should examine university admission policies and practices and how this is impacting upon the ability of students to enter and/or transfer.

## Technical Issues

### ***i) Definitions***

Have we used the appropriate definition of who is a transfer student?

We need a good definition of transfer rate so that we can monitor trends

The use of the term 'stop out' is quite different from what I mean by this term.

Are using the right measure of transfer rate what various measures should we use how much of a problem is it with respect to the classification of students into various program areas

We need to be clear what is meant by an "academic" student. Simply saying that it is the code the institution assigns to the student begs the issue.

We need to have a good methodology for identifying which students are in transfer programs at colleges

What is a valid method of measurement. Program, course, major program etc.

What's being transferred? the student vs the course.

Is Fall enrolment data the appropriate data? We appear to need annual data over the entire academic year.

Should student transfer be redefined to more accurately reflect the current educational environment?

How does identification/increased knowledge about transfer affect our understanding of retention? ie. when is a "drop-out" a "stop-out"?

Who are we measuring? What percentage of the total number of actual transfers are reflected in the report? Is the method of defining linkages effective.

What happens to transfer rates when something other than the university admission criteria of approximately one year of credits is needed in order to admit a student as a college transfer? Suppose the number of credits was reduced to 12 or 15 credits of transferable work.

What are the methods for ensuring that data collected has some consistency across contributing institutes? Are they clearly defined and if not how can they be cleaned up?

To effectively measure student movement we need to standardize student identifiers.

Should we stop collecting data and instead ask for fundamental questions on how institutions are classifying their data for the link file?

Effects of measuring a transfer based upon a basis of admission code vs actual student movement: a Transfer vs someone who has transferred.

We need some really basic student flow information: how many students started at college in a given year, perhaps categorized by program. How long did they stay at college. Of those who left each year, how many went directly and eventually to a university, to another college or institute? This would provide a solid context within which to view more focused and sophisticated studies such as the one we are looking at today.

I think we need to invest a lot of time to identify the right or important questions that we need answers to rather than a lot of time trying to answer questions that may not be that important. Let's spend 95/96 attempting to identify the right questions and at the same time attempt to clean up the data reporting problems or deterring how to clean up these problems.

We are in danger of having too much data from the link file and too much interesting information and not enough information with which to make good policy or decisions

I agree about the blurring others have reported between academic and vocational/career courses of study, and would point out that precisely the same blurring is taking place in the world of work. In the future, what steps can we make to render our information gathering more sensitive to this and other likely shifts in the pattern of demand?

There are a lot of part-time studies and CE type courses, how is this being integrated?

When is a student out of the system?

In general, college students have a more varied set of goals than university students (i.e. personal interest, upgrading). They may not be seeking a university degree. Yet we consider them as attrition when in fact they may have met their goal. If stress lifelong learning then there will be more and more of these types of students. The concept of attrition must somehow reflect this.

***ii) Technical***

The Link File is a relational database developed to provide system comparability in Post-Secondary Education.

The errors from missing matches are of great concern.

From submissions to categorization of type of program

The Link File is a relational database developed to provide system comparability in Education and Post-Secondary Education.

What's being transferred? the student vs the course.

The question of the second year requires further examination.

Access to the data is cumbersome.

How to increase linkage



We need to have a methodology for measuring whether credits for similar courses from different colleges are equivalent.

The potential systematic error introduced by non-linking to groups for whom equitable access / transfer may be an issue (i.e. women, ethnic groups, mature students)

Is transfer credit part of the data reported, and if so, what percentage of the overall students credits are applied? In other words, is there an expectation of transfer credit, and if so, what value is attached to it?

The academic and career/tech distinctions (as well as vocational and ABE) are becoming increasingly blurry. Can we drop them and just look at things on a discipline/field of studies basis, e.g. Arts, Science, Business, Health Science, etc. We're starting to see (admittedly small numbers) students in vocationally funded programs which ladder into 2 year career programs which also provide some university transfer (ECE is an example).

This may increase in the future. Why do we keep using UT, C/T and other categories which do not reflect student behavior or the trend in college programming simply because we have funding formula which uses these categories?

We need to include a post-secondary education number

What is the average course load of the post secondary student, the number of PSIs attended, duration in the system

We need to have confidence in how we classify students by program in the post secondary system

How can we reconcile institutional autonomy in course/program of study descriptions and other matters with the increasing need to demonstrate the quality of the stewardship we offer vis-à-vis the resources entrusted to us...in our particular institutions? ....for the post-secondary system as a whole?

How do students progress through the system? The analogy most often used is that of a pipeline, but it is clear this is not the case now if it ever was the case before. Would you liken it to a hamster's exercise wheel, or something that keeps going around (and comes around)? What would be the best analogy? This is important, because it helps us conceive how the information should be gathered and analyzed.

The "missing" second year -- where exactly have those who have exited gone? to the labour force, to other provinces where there is no capacity crunch?

How quickly can transfer and enrolment information be reported? by the time PSIs send data, it is already dated, and by the time SIRI validates it and produces a report, how valid is the information?

We're getting reports and analysis based on the best data available. The problem is that the institutions still are not submitting very good data. Rather than doing more and more analysis, and increasingly complex analysis involving more and more partners, isn't it time to step back, simplify things, concentrate on a few fundamental issues and make sure we have a sound foundation. I'm concerned that we're in over our depth already and yet we keep talking about doing more and more.

We need a unique ID # if the current SIN and exam IDs are not being well used. Use of the PEN should be pursued.

With the BCPAS (Application Centre) coming on line next year, we have a good opportunity to use common identifiers that will improve our linkages. Policy level decisions now will improve our data a few years from now.

What needs to be done for the Link File to report timely data. Currently the data in many cases is too dated for use in present decision making. there are a lot of part-time studies and CE type courses, how is this being integrated?

Lets get on top of this missing links business...and see whether Dan is correct or chicken little.

Very shortly, many institutions will be implementing new data systems - now is the time to push for standardization!

How can the transfer from the Link File be matched to the student outcomes information, which also captures student transfer (student response).

Institutions should be allowed to access raw data they submitted and do further analysis.

### ***iii) Types of Transfers***

Science vs Arts/Humanities destinations for college transfers rate of secondary school students entering post-secondary, institute and programs

Approximately what percentage of all BC university students have previously attended a BC college, and of these, what percentage are identified as transfer students in this report? (I suspect it is in the order of 50-75%, but this is purely a guess.)

Why is the focus only on academic transfer?

What's the difference between those students transferring to complete a program as opposed to those transferring to start a new one?

What's being transferred? the student vs the course.

Students are transferring for different reasons, no longer college to university to complete a degree. we need to identify these.

How do we account for those students who transferred out of B.C. systems to universities in other provinces or states?

What are the limitations facing students wanting to transfer from non-academic programs? How many students are making this kind of transition, and what is their academic performance relative to "traditional" transfer students.

Surely transfer students could be any student. The focus has to be on all students, not just 'academic' students for there to be value to the system.

What is the reason for so few college transfer student entering university science programs? This raises interesting policy questions about spending so much on existing college science programs.

Inter-university transfers is considerable - 1000 each year (figure 6). We should better understand this group of students. Why do they transfer? How well do they do?

Are university colleges making a dent in the number of college transfers? Do university college students stay at the U-C to complete their degree or do they still wish to transfer to a university?

What is the movement from academic programs to career/technical and applied programs (especially those that are or may be offering degrees in the future)?

Vocational program students need to be analyzed...transferring is not restricted to academic programs

PLA will impact our analysis, how will link capture and include this data?

What is the best way to measure achievement for the transfer student?

The low transfer rate for Science is perhaps not so much a transfer problem as a more general problem with Sciences in the colleges. Is the problem the type of science student the college attracts, the low volume of science enrolment which prohibits the interesting range of courses a university can offer in first and second year, funding levels for science programs in the colleges which provide a disincentive to expansion, or ????

***iv) Predictors of Success***

What is the previous educational attainment of those transferring to other institutions ?

Average gpa of secondary school students entering a PSI

What affect has the increased admission criteria of universities (GPA) had on the number of college transfers? and their success rate? Do college transfers with lower GPAs do as well as transferees with a higher GPA?

What is the profile of a successful graduate/completer and an unsuccessful student

How are our students (individual institution) doing in universities (transfer rate, university GPA's)?

It appears that high school GPA is a very poor predictor of university GPA either for direct entry or for transfer students. I think we need to study this issue some more as our entire admission system in the universities is based on a past GPA experience.

**v) Transfer Rates**

The number of college transfers to a university. How many? From what institutions? By calendar year, not just fall intake.

Length of time from secondary school completion/leaving to entering post secondary

Why did the secondary transfer issues not come forward? By this I mean how is the reverse transfer issue of university students transferring to colleges or institutes and then perhaps back to university being addressed?

Why are students taking longer within the college system?

What happens to transfer rates when something other than the university admission criteria of approximately one year of credits is needed in order to admit a student as a college transfer? Suppose the number of credits was reduced to 12 or 15 credits of transferable work.

When we examine transfer rates, we need to consider that students may transfer their courses after stopping out for a period of time; we need to examine transfer from the perspective of say a three year period after having left college.

What is the field of study of our students (individual college) in universities?

If we combine those college transferees admitted as college transfers with those students who have been admitted as direct entrants but who attended college, do the number of college transfers increase as a result?

What is the reason for so few college transfer student entering university science programs? This raises interesting policy questions about spending so much on existing college science programs.

Are university colleges making a dent in the number of college transfers? Do university college students stay at the U-C to complete their degree or do they still wish to transfer to a university?

We need some really basic student flow information: how many students started at college in a given year, perhaps categorized by program. How long did they stay at college. Of those who left each year, how many went directly and eventually to a university, to another college or institute?

This would provide a solid context within which to view more focused and sophisticated studies such as the one we are looking at today.

The low transfer rate for Science is perhaps not so much a transfer problem as a more general problem with Sciences in the colleges. Is the problem the type of science student the college attracts, the low volume of science enrolment which prohibits the interesting range of courses a university can offer in first and second year, funding levels for science programs in the colleges which provide a disincentive to expansion, or ????

#### **vi) Completions**

As a system, we need to get a handle on completions. Perhaps this could become another Link File analytic variable.

What is the profile of a successful graduate/completer and an unsuccessful student are retention rates and degree completion rates for transfer students and for direct entry students increasing or decreasing?

How can the transfer from the Link File be matched to the student outcomes information, which also captures student transfer (student response).

In general, college students have a more varied set of goals than university students (i.e. personal interest, upgrading). They may not be seeking a

university degree. Yet we consider them as attrition when in fact they may have met their goal. If stress lifelong learning then there will be more and more of these types of students. The concept of attrition must somehow reflect this.

## Data Integrity and Limitations

### ***i) Data Integrity***

Can the data in the Link file provide the answer to the transfer question?

Potential 'gross' underestimation of college to ?? transfers, particularly since the impact will likely NOT be the same for university students.

The data reflected in the report is three years old. How can we make the data more current?

How do we account for those students who transferred out of B.C. systems to universities in other provinces or states?

What are the methods for ensuring that data collected has some consistency across contributing institutes? Are they clearly defined and if not how can they be cleaned up?

For our institution, the data is old. The whole system is changing so rapidly, is this transfer report still valid?

How to measure the quality of linkages being made as different views of transfer are taken. Flow from college to university, institution to institution, secondary schools to post-secondary produced from linking differently.



The "missing" second year -- where exactly have those who have exited gone? to the labour force, to other provinces where there is no capacity crunch?

How quickly can transfer and enrolment information be reported? by the time PSIs send data, it is already dated, and by the time SIRI validates it and produces a report, how valid is the information?

Should we stop collecting data and instead ask for fundamental questions on how institutions are classifying their data for the link file?

We're getting reports and analysis based on the best data available. The problem is that the institutions still are not submitting very good data. Rather than doing more and more analysis, and increasingly complex analysis involving more and more partners, isn't it time to step back, simplify things, concentrate on a few fundamental issues and make sure we have a sound foundation. I'm concerned that we're in over our depth already and yet we keep talking about doing more and more.

Can we have faith in the Linkages? Is the data I'm reporting to senior management at my institution good data to base decisions on?

What we really need as institutions is timely data from SIRI

With the BCPAS (Application Centre) coming on line next year, we have a good opportunity to use common identifiers that will improve our linkages. Policy level decisions now will improve our data a few years from now.

How can these reports be used to encourage the pse decision makers to recognize differences in institutional data reporting and move towards standardization and institutional comparisons.

I think there is a chicken and egg problem: institutions tend not to find the SIRI/Link file data and reports to be credible and/or readable, so they can't be bothered cleaning up there data submissions. SIRI then gets really tough

data to work with and can't possibly produce solid data. This reinforces the institution's prejudices about the data submission being unimportant and so the cycle continues....

The numbers reported in the unidentified and other categories are significant figures on all reports, given all the constraints surrounding the data linkages and definitions as well as the timeliness of the data I do not find it useful in consideration of policy questions, those answers I obtain for my institution from my data. As the File is limited in providing that function, investigation into resolution of those difficulties or revisiting what the File can be used for is warranted.

## ***ii) Limitations***

How are students defining their goals at entry and are they consistent with where they actually go? These and other related questions are not reflected in the data and may not be being collected at the college level. Is there a mechanism in place for tracking what a student wants to do and relating it to what the student actually does and is there need to do this at the provincial level? Is university transfer what out academic students want and at what time in a students academic career does the goal become clear enough to use as a basis for some measurement of "success" within our academic systems?

Conclusions and generalizations on the data cannot be challenged on the basis of analytical methodology since the analysis does not provide an appendix of econometric findings.

Data on OLA should not be included with data on the colleges. To do so seriously skews the college averages. In almost every case, OLA is an outlier.

We need to look elsewhere to answers to these problems - I mean specifically examine what the academic community has concluded about many of these issues. I think that we may find support for our conclusions in other similar studies, or possibly alternate interpretations. As much time should be spent

on looking for answers that others have offered as on coming up with our own.

Good start but forget trying to build a system that will answer all questions of all parties. There are too many players and the topical issues that are "need to know" is transient over time. Rather, give a process which allows for independent relational analysis.

How can the transfer from the Link File be matched to the student outcomes information, which also captures student transfer (student response).

In general, college students have a more varied set of goals than university students (i.e. personal interest, upgrading). They may not be seeking a university degree. Yet we consider them as attrition when in fact they may have met their goal. If stress lifelong learning then there will be more and more of these types of students. The concept of attrition must somehow reflect this.

## Focus

### ***i) Who's the client?***

Who needs the information of the report?

Why is the information being gathered?

Why is the focus only on academic transfer?

Does it make a difference that the report is written from the university perspective of being the receiving institution? How do perspectives change when transfer is addressed from the college point of view?

Report was too technical and should be written in such a way that a non-technical person can understand it and use it in decision making.

I do not expect SIRI, or anyone else, to define the role of "efficiency" as it relates to my mandate and objectives. What I do expect is relatively free access to timely data that I determine, for my purposes, is relevant. Access is critical since without it no discussion on appropriate methodology is possible.

Its very important that the results of these reports be presented to college/university administration. If they do not see the value of this data, we (IR folk) will not have the time to assist in the interpretation of these results.

The shelf life for data in policy development is much shorter than for academic research. Projections of last year's expected experience based on 3-5 observations that are, at least, 3 years old is not "sellable".

We need some really basic student flow information: how many students started at college in a given year, perhaps categorized by program. How long did they stay at college. Of those who left each year, how many went directly and eventually to a university, to another college or institute?

This would provide a solid context within which to view more focused and sophisticated studies such as the one we are looking at today.

I think we need to invest a lot of time to identify the right or important questions that we need answers to rather than a lot of time trying to answer questions that may not be that important. Let's spend 95/96 attempting to identify the right questions and at the same time attempt to clean up the data reporting problems or determining how to clean up these problems.

We are in danger of having too much data from the link file and too much interesting information and not enough information with which to make good policy or decisions

Technical reports, please!

I liked Dennison's commentary on why data is collected and the specificity of the analysis of the data, and I liked the way he couched his 'twenty' questions. How do we ensure questions like these come forward instead of vague ones? How can we stop SIRI from producing so many long reports when the answers are what we want to see. If we as an institution want to see the data in detail, let us pull it from the server. Spare us the long and *(this comment ended here)*.

Need to develop common concepts

Institutions should be allowed to access raw data they submitted and do further analysis.

In general, college students have a more varied set of goals than university students (i.e. personal interest, upgrading). They may not be seeking a university degree. Yet we consider them as attrition when in fact they may have met their goal. If stress lifelong learning then there will be more and more of these types of students. The concept of attrition must somehow reflect this.

## ***ii) Reports***

SIRI reports are indeed often difficult to read - John Dennison was right on this. Also, endnotes about the limitations of the data need much more prominence. As communication tools, the reports still are not effective. At first glance, they look really slick, but as you start working with them and try to answer specific questions, they become increasingly frustrating and once you find the data, you're not entirely sure how dependable it is.

For our institution, the data is old. The whole system is changing so rapidly, is this transfer report still valid?

Its very important that the results of these reports be presented to college/university administration. If they do not see the value of this data, we (IR folk) will not have the time to assist in the interpretation of these results.

SIRI should set up some formal 'peer-review' mechanism to assist in the interpretation of the data.

Isn't this a neat way of getting feedback and commentary?

This is a superb use of technology! Good idea John.

Conclusions and generalizations on the data cannot be challenged on the basis of analytical methodology since the analysis does not provide an appendix of econometric findings.

What we really need as institutions is timely data from SIRI

We need some really basic student flow information: how many students started at college in a given year, perhaps categorized by program. How long did they stay at college. Of those who left each year, how many went directly and eventually to a university, to another college or institute? This would provide a solid context within which to view more focused and sophisticated studies such as the one we are looking at today.

The report provides several tables with very little substantive analysis. Much more attention should be given to interpretation of the tables.

In discussing findings, not always clear why the data is being presented. If prefaced by more context, results might be more easily interpreted by readers. Context might be an hypothesis, a problem statement or simply a question.

I liked Dennison's commentary on why data is collected and the specificity of the analysis of the data, and I liked the way he couched his 'twenty' questions. How do we ensure questions like these come forward instead of vague ones? How can we stop SIRI from producing so many long reports when the answers are what we want to see. If we as an institution want to see the data in detail, let us pull it from the server. Spare us the long and

Technical reports, please!

More communication between data house and institutions.

The numbers reported in the unidentified and other categories are significant figures on all reports, given all the constraints surrounding the data linkages and definitions as well as the timeliness of the data do not find it useful in consideration of policy questions, those answers I obtain for my institution from my data. As the File is limited in providing that function, investigation into resolution of those difficulties or revisiting what the File can be used for is warranted.

Information should be free. Significant contributions have already been made in the form of money and time. SIRI should now respond with relevant output that can be used to facilitate a number of applications.

A smaller quantity of really valid data would be more useful compared to a large quantity of data with questionable links.

Institutional data are useful -- to a point. Individual data (e.g., survey questionnaire), linked with institutional data, are required to enhance our understanding of admissions, transfer, educational success and eventual labour force participation.

SIRI needs a good report writer!

Institutions should be allowed to access raw data they submitted and do further analysis.

## Attachment 3: User Exchange Attendees

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