



Transfer Literacy: Assessing Informational Symmetries and Asymmetries

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Executive Summary

Research reveals asymmetries between students' (buyers') perceptions of particular postsecondary education practices (ex. admissions, financial assistance and credit transfer) and institutions' (sellers') practices (Frenette & Robinson, 2011; Lang, 2004; Lenning and Cooper, 1978; Noel, 1976; Ontario Undergraduate Student Alliance, 2010; Pascarella, 1982). In economic terms, postsecondary education can be viewed as a market with asymmetric information (Spence, 1973). According to Michael Spence (1973), asymmetries exist when certain participants in the market do not possess the same sets of information that others in the market possess. Increasing literacy around institutional admissions procedures, program offerings, financial assistance/repayment and educational pathways is regularly the focus of governments, agencies and administrators in postsecondary education. However, striking a balance of information between buyers and sellers in this market can be challenging (Lang, 2004).

Recent calls for reform have focused on improved student comprehension of the credit transfer process and the effective application of information (Andres, Qayyum & Dawson, 1997; Colleges Ontario, 2008; Constantineau, 2009; Junor & Usher, 2008; Kerr, McCloy & Liu, 2010; Ministry of Training, Colleges and Universities, 2011a, 2011b; Usher & Jarvey, 2013). National and international researchers have voiced concerns regarding students' understanding of this process and the resulting impediments (repeated coursework, limited program and professional certification alignment, lack of financial assistance and increased time to graduation) (Canadian Federation of Students, 2010; Colleges Ontario, 2008; Davies & Casey, 1998; Loades, 2005; Moodie, 2004; Nyborg, 2007; Ontario Undergraduate Student Alliance, 2010). The omission of a literacy baseline in the credit transfer debate is striking and is the focus of this research.

Transfer literacy, as it is coined in this study, *is the ability to comprehend credit transfer procedures, policies and outcomes. It refers to a set of knowledge and skills that allow individuals to advise and/or make informed decisions about admission and the mobilization of academic credits between colleges and universities to avoid the repetition of coursework, lack of financial assistance and misaligned institutional and program fit.* An investigation of students' clarity and confusion with credit transfer processes centers on the existent information system in place and its accessibility. In the Ontario context, this information system includes the Government of Ontario ("Government"), agencies (ex. Colleges Ontario, Council of Ontario Universities, the College University Consortium Council, Ontario Council on Articulation and Transfer, Higher Education Quality Council of Ontario and the Council of Ministers of Education, Canada), institutional administrators (senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff) and students. An information system where various members understand the fundamentals of

credit transfer processes and outcomes may reduce the level of omitted and/or inaccurate information.

This multi-institutional study examines the extent to which the college-to-university transfer information system is performing efficiently and identifies (a)symmetries in stakeholders' understanding of this process. Research methods include a document analysis of college-to-university credit transfer publications, reports, policies and charters from the years 1999-2012 (over 70 documents in total). Focus groups with senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff involved in advising credit transfer students (potential and successful) and/or evaluating credit were also conducted across 13 Ontario postsecondary institutions (six colleges and seven universities). In 2012, over 100 institutional administrators participated in the focus groups and contributed to the conclusions drawn from this research.

In order to assess the efficiency of the transfer information system and identify (a)symmetries among stakeholders, the following steps were taken: 1) documentation of information needs and responsibilities, 2) analysis of the degree of completeness in terms of the effectiveness and sustainability of existing and relevant information and 3) identification of internal and external factors that impact on performance and the formation of an action plan (United Nations-Economic and Social Development Department, 2008).

Documentation of information needs and responsibilities- Stakeholders identified several elements of transfer literacy necessary for students' comprehension of credit transfer processes and outcomes. First, a solid understanding of credit transfer terminology used by universities was deemed necessary if students wish to effectively search for information and ask pertinent questions. The ability to identify sites where information is housed and take responsibility for locating information is important. Students should be able to determine when advisement is needed and apply the information they receive from their appointments. Administrators stressed the need for students to recognize that credit transfer is a competitive and multistage process with unique demands at each juncture. Students must apply for admission, compete for seats, submit all required documentation for credit evaluation and attend follow-up advising appointments. Most importantly, administrators shared that, beyond the transactional side of credit transfer, the ability to make informed decisions regarding program choice, future graduate education and career goals is fundamental.

Analysis of the degree of completeness in terms of the effectiveness and sustainability of existing and relevant information- This research revealed that informational symmetries and asymmetries exist between 1) Government/agencies and institutional administrators and 2) institutional administrators and students in the Ontario transfer information system. Recognized symmetries were identified in areas where *shared* (or uniform) knowledge exists. Asymmetries were identified

in areas where some stakeholder(s) would *directly benefit from additional information* from the other(s) that is not being fully disseminated, resulting in non-uniform knowledge.

First, symmetries between Government/agencies and institutional administrators include *shared* (or uniform) knowledge about the frameworks and guiding principles for collaboration (recommendations for the acceptance of college coursework, timelines for completion and strategies for the creation and maintenance of college-university relations), admissions (grade point average [GPA], external accreditation requirements, workplace demands and available seats in university programs) and lastly innovative articulation and transfer models. Asymmetries include credit review procedures for course-to-course transfer, development of electronic administrative management systems/degree planning tools (receiving credit transfer applications and documentation, posting evaluation results, tracing academic history and advising about degree/program plans) and institutional tracking of transfer students/student data via a comprehensive research agenda. Since this research concluded, Government and the Ontario Council on Articulation and Transfer (ONCAT) have worked with institutions to construct, populate and disseminate information regarding course-to-course transfer. What once was a sizeable asymmetry is now being partially remedied. Management systems/planning tools and data initiatives are receiving attention but will require much work.

Second, administrators identified several areas where symmetries and asymmetries exist between themselves and students. Recognized symmetries include *shared* (or uniform) knowledge about the availability and benefits of articulation agreements, program choice and residency requirements, as well as *shared* (or uniform) confusion about the evaluation of applied degree credits, academic regulations, advising practices (high school and postsecondary), terminology and location of information. Asymmetries include students' unawareness that their college credit will generally not be assessed on a one-for-one basis. Program affinity, academic prerequisites and GPA all impact evaluations. Additionally, students require advisement on degree and program requirements. The variation in the two requirements can cause difficulty for students trying to determine what functions awarded credits fulfill. The number of credits students receive is not as important as their application. Finally, administrators noted that variations in structure from college-to-university demand that students be accountable for enrolling in all coursework, selecting electives and meeting breadth requirements.

Identification of internal and external factors that impact on performance and the formation of an action plan- In areas where problems were identified, the following six recommendations have been made; each represents a potential guideline/amendment to current practice for the improvement of transfer literacy among stakeholders:

- 1) *Develop a searchable centralized database for identifying previous student registrations and the electronic archiving of course outlines/descriptions.* This will assist advisors/counsellors when conducting transfer credit evaluations. Reliable mechanisms to collect and access student data across institutions are pertinent to a well-functioning credit transfer system.
- 2) *Institute and publicly post policies regarding the evaluation of applied degree credits at Ontario universities.* This is crucial for academic and system planning purposes. The role of the college in the postsecondary system has evolved over the last decade. With the offering of applied bachelor degrees, there is a duty to consider the mobility needs of students enrolled in these programs who wish to transfer both during and upon completion of their studies.
- 3) *Establish more transparent and system-wide academic regulations across institutions to assist both institutional administrators and students.* Heterogeneity in academic regulations across institutions (ex. grading scales, GPA calculations, credit values/weight, credit evaluation fees and timing, course repeats and declarations of previous postsecondary education) often results in disconnected advising practices.
- 4) *Educate students about credit transfer pathways and institutional offerings earlier in their educational careers.* This will improve their knowledge about the function and flexibility of a postsecondary education. Amplified promotion of high school guidance counsellors as conduits for information dissemination is necessary.
- 5) *Create standard credit transfer terminology.* This is particularly important when writing, structuring and publicizing articulation agreements and transfer models (ex. 'direct entry,' 'blended/joint/integrated/concurrent/collaborative/consecutive/accelerated,' 'advanced standing,' 'equivalencies,' 'exclusions' and 'exemptions'). The development of a 'Tips for Articulating' guide produced in consultation with institutions will take strides towards the harmonization of credit transfer exchanges.
- 6) *Open communication lines and resource sharing among college and university credit transfer advisors/counsellors.* Infusing information about the application of awarded transfer credits (program versus degree requirements; generic, unassigned and unspecified credits; reach backs; and the importance of program major and minor declarations) pre-university enrolment may limit confusion surrounding credit evaluations and time to graduation.

Introduction

College-to-university transfer students have become an important population for study. Understanding the demographics and performance of this subset of students has led to change in (inter)national education systems and design. This population accounts for a large amount of postsecondary admissions each year; these students are often viewed as additional revenue for institutions; and governments across jurisdictions have focused on instituting policy initiatives, reward systems and mechanisms to track transfer students' success over the last decade. Governments and agencies have legislated, funded and managed numerous degree-partnerships, block transfers and course-to-course transfers between institutions. A considerable amount of attention has been given to recognized deficiencies in the organization of postsecondary education for students wishing to transfer. An increasing demand for access to further education, greater mobility for students seeking advanced credentials, the lack of recognition of prior learning and artificial barriers to transfer have all contributed to an emphasis on reform (Dennison, 1995; British Columbia, 1988; Council of Regents, 1990; New Brunswick Commission on Excellence in Education, 1993; Rae, 2005; Ministry of Training, Colleges and Universities, 2011a, 2011b).

In the Ontario context, which is fundamentally binary, a credit transfer system has not historically been committed to in the same vein as other jurisdictions. Institutions have largely determined who is responsible for transfer student advisement; developed transfer materials, policies and procedures; and collected data on an ad hoc basis. As a result, information about the credit transfer process varies among stakeholder groups: the Government of Ontario ("Government"), agencies (ex. Colleges Ontario, Council of Ontario Universities, the College University Consortium Council, Ontario Council on Articulation and Transfer, Higher Education Quality Council of Ontario and the Council of Ministers of Education, Canada), institutional administrators (senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff) and students. While the foundational structure of the Ontario credit transfer system (partnerships, models and innovative programming) has received primary attention from Government, agencies and administrators, the development of the transfer information system has been limited. Information processing and transmission, selection, organization, reduction and conceptualization are important if there is to be a common understanding/transfer literacy among stakeholders.

Although college-to-university credit transfer has taken place in Ontario since the 1960s and represents the principal form of transfer in the province, little research has focused specifically on transfer literacy. Transfer literacy, as it is coined in this study, *is the ability to comprehend credit transfer procedures, policies and outcomes. It refers to a set of knowledge and skills that allow individuals to advise and/or make informed decisions about admission and the mobilization of*

academic credits between colleges and universities to avoid the repetition of coursework, lack of financial assistance and misaligned institutional and program fit.

The purpose of this research study is twofold:

- 1) In consideration of current student transfer demands, existing regulatory and advising practices by Government, agencies and institutions and the present state of transfer literacy among all stakeholders, to what extent is the college-to-university transfer information system performing efficiently?
- 2) What (a)symmetries exist in stakeholders' understanding of this process which affects students' facility to transfer and universities' ability to accommodate transfer students?

The objectives include: establishing a baseline of credit transfer information that Government, agencies and institutions view as being necessary for students to navigate the transfer system; assessing current regulatory and advising practices; identifying (a)symmetries within the college-to-university transfer information system from which literacy programs might be constructed; and generating data for discussion in the field.

The timing of this research is of extreme importance: the transfer literacy of stakeholders will be assessed and advanced within the new credit transfer framework for Ontario. In 2011, the provincial Government announced a spending of nearly \$74-million over five years to operate a new centralized system that facilitates transfers among institutions. New centralized credit system aims included: 1) reducing the need for students to repeat coursework, 2) developing more transfer opportunities, 3) providing on-campus advisors/counsellors and orientation programs and 4) refining a centralized website that will assist students in identifying credits for transfer (Ministry of Training, Colleges and Universities, 2011b). The Government is currently in the process of determining what these aims will require in order to be successful. This research attempts to delineate what initiatives and education will work to better enhance the credit transfer function.

Review of Literature

The document that shaped the character of the colleges in Ontario was the second Supplementary Report of the Committee of University Presidents (1965), entitled *The City College*. This report rejected the American model in favour of an *Ontario solution* and worked to correct a number of deficits in the postsecondary education system: 1) a lack of opportunity for adult education and 2) growth of the non-university sector in vocational and technical areas for students without aptitudes for university (Committee of Presidents of Provincially Assisted Universities and Colleges of Ontario, 1965).

However, even from the start, there was anticipation from the Committee of University Presidents that students who performed well in these Colleges of Applied Arts and Technology (CAATs) might be able to transfer to provincial institutes of technology or universities for additional studies (Dennison & Gallagher, 1968). Murray Ross, then President of York University, advocated for a transfer opportunity for college graduates “as a matter of provincial policy, not merely at the discretion of universities in specific cases” (Dennison, 1995, p. 123). Public debate ensued over the transfer function. University presidents wished to keep the sole right to offer university-level courses (Skolnik, 2005). Consequently, they advocated that colleges should not serve the purpose of preparing students for university, but that the college should function as a means in itself. In strong opposition to colleges offering university equivalent programs, the Committee argued that an expansion of existent university facilities could bring 90 percent of Ontario’s population within twenty-five miles of a university (Dennison & Gallagher, 1986).

On May 21, 1965 William Davis, Ontario Minister of Education, introduced an amendment to the *Department of Education Act* establishing the CAATs; the university transfer concept was not a part of these new institutions (Committee of Presidents of Provincially Assisted Universities and Colleges of Ontario, 1965). Further, the focus of the curriculum for these institutions was to be occupationally oriented with admission based on Grade 12 or Grade 13 completion and *open admission* for students over the age of nineteen (1965).

An Ontario Blueprint

A review of the literature provides insight into the chronology of credit transfer and college-university relations in Ontario. A history of regulatory practices emerges as developed by Government, agencies and institutions. The creation resembles a blueprint—a technical drawing of the transfer structure—outlining preferred procedures to be followed, load-bearing components and recently the finishing materials. While the drawing lay unfinished for several years, the long periods of pause and consideration have led to the creation of new tools, identification of required materials and accumulation of the participants necessary for advancement. Numerous developments have reinforced both drafting and construction procedures in the province (see Table 1).

Essentially, credit transfer in Ontario has made slow progress until recently. In 1988, a thorough review of Ontario’s colleges was set into action by the Honourable Lyn McLeod. The mission of the *Vision 2000* project was to develop “a vision of the college system in the year 2000” (Ontario Ministry of Colleges and Universities, 1990, p. 1). Among the challenges identified in the college system at the time was a lack of system-wide standards and planning. There was criticism of similarly titled postsecondary education programs across the system not yielding the same qualifications or skills in graduates. This lack of standards impeded student mobility. An insufficient general and generic curriculum was further discussed as an impediment to student mobility.

General education was set to constitute at least 30 percent of postsecondary education content despite most programs having less (1990). Many college programs focused on narrow occupation-specific skills versus transferable skills (problem-solving, critical thinking, numeracy and literacy) desired by employers and universities. Moreover, missing links between the colleges and universities were cited as being the result of proposed joint school-colleges-universities curriculum committees that were never implemented (1990). The original college mandate outlined that colleges would fit into an educational spectrum as “part of a coherent whole” (1990, p. 18). Finally, trends in employment at the time suggested the need for greater opportunities for college students to take advanced studies through either improved college-university links or at the college itself.

Table 1 | *Ontario Credit Transfer Developments*

1965	<i>The City College</i>
1990	<i>Vision 2000</i>
1993	<i>Task Force on Advanced Training ('Pitman Report')</i>
1995	<i>Pan-Canadian Protocol on the Transferability of University Credits</i>
1996	<i>College and University Consortium Council (CUCC)</i>
1999	<i>Ontario College-University Degree Completion Accord ('Port Hope Accord')</i>
2002	<i>Postsecondary Education Choice and Excellence Act</i>
2005	<i>Ontario: A Leader in Learning ('Rae Review')</i>
2011	<i>Policy Statement for Ontario's Credit Transfer System</i> <i>Ontario Council on Articulation and Transfer (ONCAT)</i>

The *Vision 2000* report outlined several recommendations to provide avenues for students to transfer from one type of institution to another. It was recommended that the Minister of Colleges and Universities should expand opportunities for students to move between college and university sectors through 1) consistent program standards across the college system, 2) a broadening of the general curriculum of college education, 3) the creation of advanced standing arrangements in related fields of study (ex. college business graduates and university Bachelor of Commerce programs), 4) general transfer credits for students moving between unrelated fields and 5) joint program offerings by colleges and universities (Ontario Ministry of Colleges and Universities, 1990). A number of the *Vision 2000* recommendations have been brought to life, including advanced standing arrangements and joint program offerings.

The Task Force on Advanced Training, a recommendation of *Vision 2000*, was established to identify the need for advanced training and make implementation recommendations (Dennison; 1995; Task Force on Advanced Training, 1993). The Task Force's report, entitled *No Dead Ends*,

called for the development of a provincial institute, the Ontario Institute of Advanced Training, to coordinate, manage funds for advanced training programs and grant degree-level credentials (1993). The formal recognition of credentials and province-wide policies in support of a planned system of advanced training and equitable student access were discussed in detail (1993).

By September, 1995, the *Pan-Canadian Protocol on the Transferability of University Credits* was adopted and implemented, “providing for the transferability of first and second-year university courses [including the final year of studies leading to a diploma of college studies (DCS) in Quebec and the university transfer courses offered by community colleges and university colleges in British Columbia and Alberta]” (CMEC, 1995, p. 1). Nevertheless, many provisions stood in the way of the Protocol’s implementation in Ontario: 1) the Protocol was silent with regard to the acceptance of Ontario college courses of university level, 2) the Protocol did not infringe on universities’ academic autonomy and 3) the Protocol maintained the right of universities to determine academic prerequisites, admission criteria and certification requirements of academic achievement (Constantineau, 2009).

Degree-partnerships have had more success. In 1999, the *Ontario College-University Degree Completion Accord* was signed by representatives from the colleges and universities. The Accord set out a series of principles for the development of degree completion agreements. Progress made in the Ontario system was significant; in May 5, 2004, 216 approved collaborative program agreements (including joint, degree completion, consecutive and concurrent programs) were listed on the *Ontario Postsecondary Transfer Guide* (OPTG) (Ontario Confederation of University Faculty Associations, 2008). This represented an increase of approximately 60 percent over three years (176 college-to-university and 40 university-to-college agreements) (Ontario Confederation of University Faculty Associations, 2008; Ontario Universities’ Application Centre, 2004).

One distinctive development inadvertently influencing the credit transfer system has been the establishment of the *Postsecondary Education Choice and Excellence Act* (2000). This act gave the CAATs authority to offer new competitive programs and degrees both independently and in conjunction with existent degree-granting institutions. The result has been the formation of unique applied degrees and cooperative programs. Student choice has increased with the ability to concurrently earn a diploma and bachelor degree, utilizing theory and skills in the classroom. Despite the increase in collaborative programming offered by colleges and universities, the 2005 release of *Ontario: A Leader in Learning* announced the need for regional/program collaborations (California model), a focus on high-demand programs and ‘generic courses’ (course-to-course transfer). The latter, ‘generic courses,’ a core set of courses comparable in terms of learning outcomes (ex. first year introductory courses), was cited as a necessary area for improvement (Rae, 2005). The ‘Rae Review’ outlined the value of “encouraging all colleges and all universities to come

together as a group to outline (and make available publicly) expected learning outcomes and make any necessary changes to help ensure an alignment” (2005, p. 42).

While many of the issues reviewed and debated in the above literature have received limited traction over the last forty years, the time for improvement and implementation has arrived.

A Fresh Approach: Ontario’s New Credit Transfer Framework

A number of students with previous college attendance pursue bachelor degrees in a university setting. Students are aware of the need for education to be a global venture in which they are able to move and study between institutions of interest. Education should not be a one-time purchase, but should work to include as much perspective and acculturation as possible. Students in Ontario and other jurisdictions have been generally way ahead of educators and planners in discovering the value of combining the strengths of the colleges in hands-on learning with the strengths of the universities in academic education (Jones & Skolnik, 2009).

Educators and Government have made efforts to create transfer opportunities for students in college programs by means of several targeted funding initiatives and projects (Jones & Skolnik, 2009). In 2006-2007, the Ontario Ministry of Training, Colleges and Universities (MTCU) awarded three million dollars to the CUCC as part of the provincial *Change Fund Initiative*. The projects funded under Phases I and II covered “a range of initiatives from collaborative college-university program development, through bilateral transfer agreements, to multilateral direct entry degree completion agreements” (CUCC, 2009, p. 5). Moreover, the development of “course equivalencies from college General Arts and Science/Liberal Arts programs to university degree programs in Arts, Social Science and Science” were created to aid an area of increasing student movement (CUCC, 2009, p. 5). Further, the CUCC conducted in-depth research on credit transfer policies, practices, frameworks and student resources in over forty jurisdictions (CUCC, 2009). Summaries of best practices and barriers to transfer were developed and presented to the provincial Credit Transfer Steering Committee and Working Group in preparation for the development of the new credit transfer framework (CUCC, 2009).

MTCU first added system-wide indicators on participation in the credit transfer system for the 2009-2010 *Multi-Year Accountability Agreements* (MYAA) report-back process (Kerr, McCloy & Liu, 2010). The *College Graduate Survey* was used to report data from college graduates who have transferred to university within six months of graduation (Kerr, McCloy & Liu, 2010; Ministry of Training, Colleges and Universities, 2010a). Ontario Universities’ Application Centre (OUAC) data were used to report the number of transfer applications and registrations from colleges in Ontario (Kerr, McCloy & Liu, 2010; Ministry of Training, Colleges and Universities, 2010b). The report-back gathered information on promising practices institutions have used to promote credit transfer

(ex. transfer policies, specifically defined credits and entry points, new or expanded agreements and students' academic preparedness and satisfaction).

In 2011, the Honourable John Milloy announced a plan to construct and operate a functional new centralized system. This recent responsiveness to credit transfer in the province is a welcome addition. Government, agencies, institutional administrators and students hold a vested interest in ensuring transfer information, resources and personnel are helpful, savvy and up-to-date. This work will assist in increasing Ontario's current marginal transfer rate. While the provincial totals for transfer have been growing over the last decade, increases have been minimal, growing at a slow steady pace (see Table 2). Transfer rates do not compare favourably to similar jurisdictions and suggest a remaining disconnect between Ontario's colleges and universities (of which transfer literacy may play a part).

Table 2 | *Ontario University Applicants and Registrants with Previous College Attendance by Year*

	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08
Applicants	7,059	6,875	6,282	6,508	6,692	7,910	8,668	10,693	14,490	15,624	15,950	16,154
Registrants	2,542	2,408	2,229	2,109	2,046	2,513	2,782	2,746	4,263	4,479	4,194	5,110

Note: Table adapted from Colleges Ontario. (2009). *Student mobility between Ontario's colleges and universities*. Toronto: ON. Totals calculated using OUAC data.

Methodology

There is little research in the Canadian, more specifically the Ontario, context regarding credit transfer information systems; this study seeks to describe and evaluate the phenomena under investigation. The objectives of this research lend themselves to a qualitative methodology: establish a baseline of credit transfer information that Government, agencies and institutions view as being necessary for students to navigate the transfer system; assess current regulatory and advising practices; identify (a)symmetries within the college-to-university transfer information system from which literacy programs might be constructed; and generate data for discussion in the field. An understanding of Government's, agencies' and institutional administrators' perceptions of the credit transfer information system were attained.

Phase I: Document Analysis

In the first phase of this project, a document analysis of Government's, agencies' and institutions' perceptions of college-to-university transfer in the province was undertaken. This form of analysis entails locating, selecting, assessing and synthesizing data within the documents (Lincoln & Guba,

1985; Strauss & Corbin, 1998). The excerpts, taken altogether, reveal underlying meanings, patterns and processes, which are identified through content analysis (Altheide, 1996; 2000; Bowen, 2009; Labuschagne, 2003). The document analysis includes publications, reports, policies and charters from the years 1999-2012. This time period was chosen for the primary documents it includes. The period is framed by two of the most substantial credit transfer achievements in the province (*Ontario College-University Degree Completion Accord* and the 2011 announcement by the Honourable John Milloy, of a new credit transfer framework for Ontario). A table was developed as a means of summarizing the reviewed documents, which are organized according to two classifications: 1) system-wide, macro level studies and 2) institution-specific, micro level case studies (see Appendix A). These classifications are further divided by student and administrator expectations. Documents that focus discussion on the concepts, materials and tools that assist students in their navigation of the credit transfer system or research collected about students' credit transfer activity, expectations and satisfaction are included in the 'Student Expectations' category. Documents classified within the 'Administrator Expectations' category include those that focus discussion on assisting institutional administrators in their efforts to promote and facilitate credit transfer among institutions.

All documents selected for inclusion in Phase I highlight provincial transfer arrangements and mobility between colleges and universities as the principal form of transfer. While there are more system-wide than institution-specific documents included on the list, this is not to suggest that a dialogue on credit transfer in the province has not been occurring at the institutional level. Rather, limited institutional research was posted publicly and was reasonably accessible at the time of the document analysis. Within the new credit transfer framework, the public sharing of institutional research has grown, with waves of institutional projects now being funded and published by ONCAT. Documents written about international student transfer and out-of-province transfer arrangements and mobility are not included.

In completing a scan of all credit transfer, articulation and student mobility documents in the province from 1999-2012, the investigator began with those documents posted online under various postsecondary education groups' webpages throughout the province. These groups include: Colleges Ontario (CO), Council of Ontario Universities (COU), the College University Consortium Council (CUCC), Ontario Council on Articulation and Transfer (ONCAT), Higher Education Quality Council of Ontario (HEQCO), the Council of Ministers of Education, Canada (CMEC), the Ontario Undergraduate Student Alliance (OUSA), the Canadian Federation of Students (CFS)-Ontario affiliated component and the Ministry of Training, Colleges and Universities (MTCU). After this initial scan, consultations with academics in the credit transfer field yielded a small collection of additional documents for inclusion. In total, over 70 documents have been reviewed as part of this analysis. While this list is not exhaustive, it is believed the selection chosen is representative of credit transfer deliberations in the province from 1999-2012.

The research tool NVivo was used to parse each credit transfer document. This procedure began by extracting and classifying bibliographic qualitative data about each document (Bowen, 2009). The investigator employed both open and axial coding techniques: 1) open coding to categorize and name themes while examining the properties and dimensions of the data and 2) axial coding to identify a central phenomenon and relate categories by identifying links and relationships among the data (Creswell, 1998; Strauss & Corbin, 1990; 1994; 1998). The objectives of this analysis were to identify: 1) descriptive items, such as the purpose of the text, stakeholders involved, actions to be taken and resources to be allocated to credit transfer, 2) procedural items, such as specific elements of credit transfer and their implications and 3) inferential items, such as the operational definition of the terms 'transfer,' 'seamless' and 'affinity' underlying each text. Using these objectives, nodes and sub-nodes were established. Each node was given a clear and operational definition to ensure the consistency of its use throughout the application process. The initial set of nodes were revised and reworked as new data surfaced throughout the research process.

A number of qualitative research techniques were used to identify themes such as key-words-in-text (the range of uses of key terms in phrases and sentences), constant comparison (how the themes, terms and phrases differ from the proceeding statements) searching for missing information (what is not been explained or written about but might have been expected to be included), connectors (connections between terms such as causal and logical connections) and pawing (circling words, underlining, highlighting etc. indicating different meanings and coding) (Strauss & Corbin, 1990; 1994; 1998).

Phase II: Focus Groups with Institutional Administrators

In the second phase of the project, institutional visits took place at colleges and universities across Ontario in order to conduct focus groups with senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff involved in advising credit transfer students (potential and successful) and/or evaluating credit. Overall, 13 (out of 17 recruited) Ontario postsecondary institutions (six colleges and seven universities) participated in Phase II. Postsecondary institutions invited to participate in this research were those with the highest student transfer application rates in the province. It is held that these institutions have the most experience advising students about the transfer process (regardless of the result of students' transfer applications). Application rates were calculated using OUAC transfer application data from 2008, 2009 and 2010. These data include those transfer applications processed through the Centre. Applications from part-time students and those in transfer partnerships may not be included in these counts.

The investigator sent the senior academic or student affairs/services officer in charge of the credit transfer portfolio a 'recruitment letter' requesting their institution's official participation in the research study (see Appendix B). The senior academic or student affairs/services officer at each

participating college and university, using the institutional organizational structure, then identified individuals advising credit transfer students and/or evaluating credit. Faculty members in advisement positions were identified in those departments with the highest proportion of transfer at each institution. The roles and responsibilities for credit transfer advisement and evaluation varied at each institution. A 'letter of invitation to participate' authored by the investigator (see Appendix C) was sent to senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff. The letter was endorsed by the senior academic or student affairs/services officer and sent by an on-campus contact person to individuals working under the credit transfer portfolio. In 2012, over 100 senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff participated in the focus groups. The participants represent a wide range of functional areas and positions across the institutions involved (see Table 3).

Table 3 | *Participants Functional Areas and Positions*

Participants' Functional Areas	Positions
Academic	Advisor/Coordinator/Associate Vice President/ Assistant Director
Program	Manager/Chair/Coordinator/Administrator
Pathways	Consultant/Coordinator/Specialist
Degree and Credit Transfer	Assessor/Coordinator/Manager/Officer/Clerk
Career/Employment	Counsellor/Consultant/Advisor
Registrar	Assistant Registrar/ Associate Registrar/Analyst
Admissions/ Entry	Assessor/Advisor/Liaison Officer/Manager/ Associate Director/Assistant Director/Director/Counsellor
Recruitment	Assistant/Officer/Manager/Advisor
Curriculum	Coordinator
Student Success	Specialist/Advisor/Director/Officer
Faculty	Lecturer/Chair/Associate Dean/Dean
Administration	Officer/Assistant
Client Services	Manager/Officer

The purpose of the audiotaped, 75 minute semi-structured focus groups was to collect essential information students should be able to comprehend and apply about the transfer process and

identify potential (a)symmetries among stakeholders.¹ The focus group protocol was composed of the following components (see Appendix D):

- 1) *Clarifying Terms and Concepts*- Participants elaborated on the use/context of the terms 'transfer student,' 'articulation,' 'advanced standing' and 'transfer model' at their institution; identified institution-specific credit transfer terminology; and defined transfer literacy.
- 2) *Information Matrix*- Participants completed an information matrix: 1) identifying those areas of student clarity and confusion with both internal and external credit transfer information and 2) identifying their own areas of clarity and confusion.
- 3) *Transfer Elements and Advising*- Using the matrix as a springboard, participants answered broad semi-structured questions about advising practices and the importance of chief transfer elements (programmatic and course planning, articulation and transfer models, admissions, credit review and evaluation, financial aid and costing).

The results of this research represent the voices of those individuals who voluntarily chose to participate in the focus groups. Those who participated were recruited systematically; each focus group consisted of individuals with first-hand experience advising credit transfer students and/or evaluating credit.

All recorded and written notes from the focus groups were transcribed. From the transcripts, the investigator used the same open and axial coding techniques employed in Phase I (Creswell, 1998; Strauss & Corbin, 1990; 1994; 1998). A PowerPoint was composed for each institution detailing the themed summary (open coding) and preliminary findings (axial coding). Participants were electronically sent a copy of the PowerPoint and asked to participate in a 40 minute conference call (10 minute presentation followed by a 30 minute discussion). The purpose of the conference call was to provide participants with an opportunity to affirm that the summary reflected the focus group conversation, elaborate on that which was originally stated and comment on any recent developments that were of importance to the study. This form of 'member checking' is an essential component of qualitative research as it allows participants to validate the accuracy of the investigator's interpretations and minimize distortion (Byrne, 2001; Lincoln & Guba, 1985; Rubin & Babbie, 2008).

¹ Interviews replaced focus groups in the research design when the collective group of participants fell below three people. Focus groups generally range from 3-12 participants, a group large enough to allow for multiple and diverse perspectives and small enough for everyone to have their insights heard (Krueger, 1994). The focus group protocol (see Appendix D) was used as an interview protocol in these circumstances.

Theoretical Framework

This study utilizes seminal concepts from contract theory, a branch of economic research which investigates how stakeholders interact and form contractual arrangements often in the presence of asymmetric information, as a lens through which to interpret and analyze the results. In 2001, George Akerlof, Michael Spence, and Joseph Stiglitz won the Sveriges Riksbank Prize in Economic Sciences for their research contributing to the development of this sub-discipline. As mentioned, above, asymmetric information arises when (at least) one stakeholder has more or better information than the other(s) involved in an exchange or transaction.

In his famous paper, Akerlof (1970) uses the market for used automobiles as an analogy for understanding this concept: sellers have better information about the quality of their vehicles for sale than buyers. Whether the automobile is a peach or a lemon, therefore, can only be learned with precision by buyers after the transaction is completed. Similarly, student admissions into postsecondary education—including credit transfer—are contractual negotiations involving asymmetric information wherein both parties seek to determine the value of one another, but where true values and the quality of the match can only be learned over time after entering into the agreement. Such problems are referred to as *adverse selection* (in contrast, *moral hazard* exists when information asymmetries persist even after a contract has been entered into). The incongruities that arise from adverse selection may ultimately lead to problems of attrition, lack of program fit, dissatisfaction and increased spending. This bears a striking conceptual resemblance to Akerlof's (1970) prediction of how asymmetric information distorts markets, in his case for automobiles, resulting in inefficiencies of exchange. For this reason, the adverse selection model is an appropriate framework for understanding the college-to-university transfer system in Ontario.

In order for administrators to learn about their transfer applicants, students are required to present personal information such as: number of previous credits acquired, credits eligible for transfer, sending institution, program of study, academic prerequisites, transcripts, course repeats, course descriptions, course outlines, textbooks, portfolios, confirmation of co-op hours and reading requirements among other items. In other words, institutions do not know applicants' true 'quality' but they do observe a "plethora of personal data in the form of observable characteristics and attributes of the individual, and it is these that must ultimately determine his assessment" (Spence, 1973, p. 357). In contract theory, this process is called *signalling*, i.e. a mechanism to reduce or mitigate the inefficiencies that would arise from information asymmetries during contract formation. In addition to deciding what to communicate to institutions to be evaluated for entry, students also signal their expected fit for a program by choosing with which universities to communicate. However, proper communication is a two-way street: administrators must also disseminate their expectations and evaluation criteria in order for students to signal efficiently.

Assessing the efficacy of the transfer information system and identifying (a)symmetries and current signalling practices among stakeholders will assist in forming a baseline from which literacy programs may be constructed and institutional and/or system refinements made.

Results

This research has two purposes: 1) determine the extent to which the college-to-university transfer information system is performing efficiently and 2) assess the (a)symmetries existent in stakeholders' understanding of the process which affects students' facility to transfer and universities' ability to accommodate transfer students. Assessing the efficiency of an existing information system and conducting an information gap analysis requires the following necessary steps:

- 1) Documentation of information needs and responsibilities;
- 2) Analysis of the degree of completeness in terms of the effectiveness and sustainability of existing and relevant information;
- 3) Identification of internal and external factors that impact on the performance of the information system and the formation of an action plan to develop and implement activities to fill information gaps (Akerlof, 1970; Spence, 1973; Stiglitz, 1990; United Nations-Economic and Social Development Department, 2008).

The results of this research are discussed accordingly herein.

I. Documentation of Information Needs and Responsibilities

As a means of documenting both information needs and responsibilities, Phases I and II of this research center on establishing a baseline of credit transfer information that Government, agencies and institutions view as being necessary for students to navigate the transfer system. Figure 1 illustrates the nine elements that were most frequently identified from the document analysis and focus group sessions.

Terminology, Structures, Policies and Procedures

The most commonly-cited need for information is regarding terminology, structures, policies and procedures. The first, terminology, is commonly discussed as being a first step to entering the transfer information system. Without an understanding of the terminology and its application to the admissions, evaluation and enrolment process, students may experience difficulty navigating the transfer system and making informed choices. A number of participants discussed the need for clarity and consistency in the various credit transfer terms used within the system. One participant

commented that literacy should include “stricter, sharper definitions in terms of what we mean by partnership, pathways and collaboration, because these terms are used rather loosely.” The need for “consistent terminologies” and the “use of language for clarity versus jargon” was found to be essential.

Figure 1 | *Definitional Elements of Transfer Literacy*



It was clearly communicated that “students have to learn a new kind of language; they have to become literate in our [universities’] systems, structures, codes and terms.” The language used to describe the credit transfer process is of key importance for students, as the “vocabulary allows them to deal with challenges.” If students are not fluent in the terms and concepts required it can be difficult to ask questions regarding the policies and procedures governing their situation.

The terminology used in the documents reviewed proved to be distinctly Ontarian. The analysis revealed the need for an exercise in lexicography for those stakeholders within the transfer system. For example, while the most prominent transfer models, categories and types are used fairly consistently, others require clarification. The number of terms used to describe transfer is overwhelming: ‘block credit,’ ‘advanced standing,’ ‘collaborative programs,’ ‘direct entry programs,’

'degree completion,' 'consecutive,' 'concurrent,' 'joint/integrated,' 'blended program agreements,' 'articulated/blended program agreements,' 'accelerated/intensive,' 'laddering' and 'bridging courses/programs.' Student confusion can set in when trying to learn the logistics and distinctions that govern each of these agreements, models and terms.

Government, agencies and institutions have a responsibility to use terminology consistently in their print and web materials when advising students and in all governance proceedings when discussing credit transfer. Participants stated that this form of consistency is pertinent to "everyone speaking the same language." The ONCAT glossary of terms speaks to the commitment to expand and make use of a common language for credit transfer. Institutional administrators admitted to using terms fairly loosely when advising students. During the focus group sessions, participants commonly broke out into side conversations when asked to define common terms used within their institution. A universal language, even among participants at a single institution, was difficult to come by. However, one senior leader provided a constructive resolution, stating that she has been leading the charge to refine institutional print and web materials for students in accordance with the ONCAT glossary throughout her institution. A conscious effort is being made to use the terminology outlined by ONCAT in daily interactions with students.

Likewise, structures, policies and procedures were cited as being integral to transfer literacy. Several documents outlined caveats students should be mindful of when transferring: program-specific criteria and academic performance are used during the admissions process, admissions is not guaranteed, the repetition of coursework is costly, program affinity is advantageous, residency requirements vary by institution and appeal mechanisms allow for credit evaluation decisions to be challenged (ACAATO, 2005; CFS, 2009; CMEC, 2002, 2006; CO, 2005; CUCC, 1999; OUSA, 2011; Skolnik, 1999). One participant stated, "I think they [students] have to understand it's a whole process." Transferring credits involves several steps that students must familiarize themselves with. Policies and procedures often vary from one institution to another: "Often colleges and universities have different procedures we're advising them for, doing all kinds of things, and I think that literacy extends beyond just the language. It should include the procedures and processes as well."

Participants commonly spoke about crafting step-by-step guides to lead students through the transfer process at both sending and receiving institutions:

- "Very plain language and in steps, so that a student would just be able to transfer really easily and it would be very transparent Step 1, Step 2, Step 3, not a mystery and requiring the reading of 12 pages."
- "Internally in the Business School, we developed a step-by-step process, so Accounting is a huge area where people transfer, so we've got a document that says here are your options ... well the main options that are sought out and some basic steps."

Of course, once this information is composed, it is important that it is made widely available to all institutional administrators and students.

Literature and Publicity/Centrality of Information/Responsibility and Processing

The availability and centrality of literature about the transfer process were discussed as being of primary importance. Participants stated, “They [students] should know where and how to access information.” Others explained that transfer literacy should “Presumably include information that allows our clients to know: what are the options, the processes and so on. We have a lot of opportunity that exists and is there a problem with getting that message across? Because of a transfer literacy shortfall?” Print and web materials were discussed as sources of information that should be easy to locate and navigate. Materials identified in both the document analysis and focus groups sessions are listed below:

- *Institutional Websites*- “Websites with easily navigable items (ex. course descriptions).” “One centralized place that will house the [articulation] agreements [on each college and university’s website], the archive – the paperwork if you will, electronic – because right now if you want to find the details on a bunch of articulation agreements, you’ll likely have to go to a variety of different academic faculties’ sites.”
- *Transfer Booklets/Guides*- “University wide transfer booklets with general, not complicated, guidelines for programs.” “Wouldn’t it be great if every university in Ontario composed a three or four page booklet with that information [articulation agreements, transfer models and the admissions process] in it?”
- *Ontario Postsecondary Transfer Guide*- “When students start to even think about where they can go after school, they don’t even know on the website what to look up. The ‘Transfer Guide’ is not exactly an intuitive term.”

Familiarity with existing locations/portals where credit transfer information is housed is necessary for students. However, participants noted that the amount of searching that is necessary to locate information can be challenging. For example, colleges and universities typically house articulation agreements, admissions and transfer policies in varying locations. To circumvent this issue, one senior leader proposed composing a directory, containing all of the articulation agreements an institution is involved in, and posting it publicly on the Registrar’s webpage or another relevant location at each Ontario institution. This initiative would create a semblance of uniformity. Faculties may still wish to post relevant information for students on their individual webpages, but a master list spanning all areas would be available.

Transfer booklets were cited as being a useful tool students are able to mark-up and share with others during the decision process. Both college and university participants were able to name those institutions with clear transfer booklets/guides and the advantages of providing these hard

copy and electronic documents to students. A few participants commented that the resources and staffing required to produce and update such a document is too much: “We had tried at one point to publish something so that students would know in advance, but it changes continuously, and it is difficult to maintain, and so because we did not have the resources to maintain it, I think we decided to drop it.” The development and maintenance of this form of information in the Ontario system currently varies among institutions. Funding provided to institutions from ONCAT is currently working to assist administrators in their promotion of credit transfer opportunities.

Additionally, ONTransfer/OPTG was discussed as a learning opportunity for both administrators and students at Ontario institutions. Recognition and use of the portal varies widely by institution and division/department. Increased training sessions on the use of this website and the portal it houses were discussed as options for the improvement of its function and use as an advising tool. Participants stated that a common awareness when advising students would create a level of consistency among advisors/counsellors both within and among institutions. The documents analyzed provide a history of the progression of the OPTG and the major revisions it has undergone since initially being launched in 1998 as the *Ontario College University Transfer Guide* (OCUTG). Defining features of importance to administrators and students include: the use of web analytics to measure, collect and analyze the Guide’s various capabilities and viewings of its various elements; the development of an OCUTG newsletter to enhance communication among administrators; the introduction of new categories of agreements; and more inclusive information on a multitude of transfer pathways (CUCC, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010).

Nevertheless, despite the information available, students have the responsibility of applying policies and procedures to their situation in an effective manner. One advisor explained:

It may help us at our level to have all the information in one quick and easy accessible place, but in the end I think it goes back to processing. Students are not reading what we are giving them The ones that are doing very in-depth research, they benefit from that, but for the most part students just come into my office.

Students must understand the information garnered from their advising appointments and be able to act upon that information. There is a level of responsibility and confidence they must possess to move forward.

Self-Recognition of Position and Merits/Assessment and Competition

Students’ confidence levels and recognitions of their position are at the forefront of transfer literacy. All students do not recognize the term ‘transfer student.’ Some feel that they are graduating from their college program and applying for a new program at a university. An explanation of the transfer concept is essential:

- “Understanding that there is such a thing as transfer is fundamental. I recently spoke to a young man a couple weeks ago who had completed a three-year diploma from a college and he had no idea that he would actually be considered a transfer student, and that he’s entitled to take that education and apply it towards a degree.”
- “You’re a transfer student, you’re coming from another institution but then when they’re looking on university websites, are they return students or transfer students? They don’t really understand what that means and what does a first year or second year look like at specific institutions?”

Further, comprehending the benefits and limitations of transferring credits and determining one’s academic year of study are additional conceptual leaps students must make. Participants explained that it is the concept of transferring credits that students must recognize: “They [students] don’t always understand why they want transfer credits. I think it’s easy for them to say they don’t want credit For some, they have these notions that the grades are going to come forward and that the program of study is actually going to be very different.” Participants stated that students are often unsure about the application of previously earned coursework to a university degree, the level of affinity between programs and the potential impact of college grades on university grade point averages (GPA). Administrators discussed the latter in detail:

There is a reason for that perception. Every institution is different ... some universities will take the credit and the grade and some universities won’t. It depends on the home institution’s policies and procedures. Sometimes the students are legitimately confused about whether the mark is going to come into play or not.

The evaluation of credits and resulting implications can be baffling. The documents reviewed frequently discussed: the daunting task of determining whether a prospective college transfer is likely to succeed, the amount of credit to be granted, student satisfaction with awarded credit and the implications of receiving credit (GPA, course scheduling, full-time/part-time status, financial, and time to graduation) (ACAATO, 2000; CO, 2005; COU, 2004; OUSA, 2011; Usher & Jarvey, 2013).

Lastly, once students recognize their position, assessment and competition is a piece of transfer literacy that cannot be overlooked. The competitive admissions process can at times be disregarded by students and is the first determinate of their transfer success: “If somebody is very well versed in the transfer model, they may understand how it is being evaluated but not necessarily for them to actually get to and fro; they first need to be admitted. They need to know the admissions policy.” Participants commented that students must recognize they are in competition with high school applicants, international applicants and college/university transfers. An application will be required and an assessment will take place: “Understanding the differences between when they applied from high school, ‘is the process different and if it is how?’” Moreover, “submitting the appropriate documentation” is the first impression a student makes upon applying to a receiving

institution. Advisement during the transfer process can ensure that all requirements for admission are met and supporting documents are arranged.

Advising, Forecasting and Preparation/Program Affinity and Coursework

Obtaining advisement while preparing to transfer can strengthen students' understanding of the process. Participants named several items that students may receive assistance with during their advising appointments:

- *University Admission*- "I have to remind them partway through their college studies, just because you don't make the cut for one of our joint programs or partnerships, you can still go to university,' and a lot of times they don't hear that and think that if they fail one course, 'I'm not going to university so I might as well drop out.'"
- *Institutional Choice*- "The benefit of choosing one institution over another as opposed to how the process works This is why [University X] would be your best choice. I think we have a challenge in terms of varying students and making sure they are ready for what happens."
- *Minimums and the Application Process*- "What options are out there, understanding that what is published is the minimum and how to proceed with the application process."
- *Program Affinity*- "Curriculum for one program versus another is an important consideration...You start out; you do a year and a half or two years in a Nursing program and want to transfer to Engineering."
- *Credit Review, Evaluation and Coursework*- "The whole credit review and evaluation that goes on at the university. We know what happens, we give them a heads up about that, and although I'd like to be able to influence the program and course planning, that's not something I have much control over."

While common concerns regarding credit transfer surface among students, advisors/counsellors were quick to state that advising practices vary depending on a student's program and educational background. Participants stated that information is generally "very case-by-case independent." Additionally, a consistent level of information across advisors/counsellors was cited as an item for improvement. One administrator stated:

Transfer literacy needs to also happen internally and I think that is a big issue. People not having the correct information and then telling the student something and then it's the wrong thing. Not doing it on purpose, but because that's the most information they have. We need to do more.

Participants discussed constant circulation of current/new procedures and improved information sharing between divisions/departments as possible solutions.

Outcomes and Career Prospects

Ultimately, the outcomes and career goals associated with students' transfer decisions must be aligned. One administrator described the information required:

Transfer literacy in my view also means having literacy around how the postsecondary education system works. It is not just about having literacy around how to transfer from one institution to another There's a transactional side, I've got credit, what can it earn me, but then there's the career and where can postsecondary education take me.

Others commented on the purpose of the university program chosen and expenses: "Relevance of the program towards employment prospects in the future. Understanding how much it might cost to pursue a program in order to reach a particular terminal credential." Students' ability to make informed decisions regarding program choice, future graduate education and career goals is the ultimate measure of literacy.

II. Analysis of the Degree of Completeness in Terms of the Effectiveness and Sustainability of Existing and Relevant Information

An assessment of the (a)symmetries existent in stakeholders' understanding of the transfer process which affects students' facility to transfer and universities' ability to accommodate transfer students was conducted. *Symmetry refers to a congruity in credit transfer information between stakeholders.* This includes *shared* (or uniform) knowledge about the credit transfer process as well as *shared* (or uniform) confusion. In other words, symmetry of information arises when all of the relevant stakeholders are 'on the same page': there is no withholding of information, they share common knowledge about the credit transfer environment (even if this knowledge is incomplete), and they hold common beliefs/expectations about future outcomes. In contrast, *asymmetry refers to an incongruity in information resulting in non-uniform knowledge across relevant stakeholders.* In this case, some stakeholder(s) would *directly benefit from additional information* from the other(s) that is not being fully disseminated. This may arise if stakeholders have incentives to withhold information, the costs/challenges of collecting and disseminating information are too high, or the information is simply too complex for stakeholder(s) to reasonably comprehend. This examination consisted of identifying (a)symmetries between 1) Government/agencies and institutional administrators and 2) institutional administrators and students.

Government/Agencies and Institutional Administrators

In Phase I, a document analysis of Government's, agencies' and institutions' perceptions of college-to-university transfer in the province was undertaken. The document analysis included publications, reports, policies and charters from the years 1999-2012. The findings of this analysis are discussed herein as they compare to institutional administrators' responses in Phase II of this

research study. Several meaningful symmetries and asymmetries were identified between Government/agencies and institutional administrators.

Symmetries

This section details areas of the transfer process where shared information exists between Government/agencies and institutional administrators. Similar arguments, concepts and priorities were named and elaborated upon by each stakeholder group.

The document analysis revealed several frameworks and guiding principles for collaboration (ex. *Pan-Canadian Protocol on the Transferability of University Credits*, *Ontario College-University Degree Completion Accord* and the *Policy Statement for Ontario's Credit Transfer System*). These documents outline the guiding principles for a functioning credit transfer system: guidelines for the acceptance of college coursework, timelines for completion and strategies for the creation and maintenance of college-university relations. Institutional administrators also collectively discussed these guiding principles.

Additionally, symmetries were identified with regard to information about admissions, articulation and transfer models. Similar priorities, operating procedures and concerns arose throughout the document analysis and focus group sessions. The first, admissions, was identified by both groups as being of primary importance for a successful transfer system. Institutional responsibility to offer admission to those students whose academic backgrounds indicate that they are likely to succeed in university programs was discussed in detail. Those items identified as being crucial for admission include: GPA, program-specific criteria, external accreditation requirements, workplace demands and available seats in university programs. The Council of Ministers of Education, Canada (CMEC) Working Group on Credit Transfer (2009) noted, "Transfer students should be made aware that program-specific criteria and other factors, in addition to academic performance, may be used as admission criteria. That is, while possession of academic prerequisites makes an applicant eligible for admission, it does not guarantee admission to a particular program" (p. 36). The need for consistency in admissions decisions, credit transfer policies and evaluations was frequently discussed. Numerous documents stated that transfer and direct entry students should not experience advantages or disadvantages as a result of the credit transfer process (CFS, 2009; CMEC, 1995, 2010; OUSA, 2011; Skolnik, 1999). Moreover, students should be able to obtain an institution's reason(s) for refusal of credits for transfer and experience clear appeal procedures (OUSA, 2011).

Both stakeholder groups also highlighted articulation and transfer models; the analysis revealed a number of transfer models and categories. The expanding scope of relations between colleges and universities is evident in the unique college-university programming developed in Ontario. These relations led to the discussion of many concepts necessary for credit transfer: programming,

learning outcomes, innovation, trust and respect, governance and shared resources. The latter proved to be a great concern for those engaging in college-university relations. Participants noted that numerous partnerships have been implemented over the years via shared resources and campus space. Government and agencies also proudly discussed these collaborative ventures. Numerous examples were cited in the documents reviewed:

- Seneca College and York University, Seneca College's General Arts and Science program and York University's Faculty of Arts established a ground-breaking and unique articulation agreement that facilitated student transitions into a bachelor degree;
- Georgian College University Partnership Centre (UPC), a number of Ontario universities currently have formal agreements with Georgian College to deliver degree studies;
- University of Guelph and Humber College, a new facility created through a partnership between the University of Guelph and Humber College dedicated entirely to serving students who wish to receive both a university degree and a college diploma;
- Durham College and the University of Ontario Institute of Technology (UOIT), the creation of a two-plus-two model with a summer bridging program for college graduates wishing to transfer to high-affinity degree programs (COU, 2004; Trick, 2013).

Overall, fundamental changes in Government policy have led to the creation of numerous partnerships over time in Ontario: 1) full funding for incremental undergraduate enrolments (universities receive revenues to assist with the costs of serving additional college transfers) and 2) a portion of Government SuperBuild funding devoted to joint college-university initiatives (COU, 2004).

College-University relations are currently beginning to expand once again and Government, agencies and administrators seem to hold similar visions for the future. Earlier documents discussed bilateral transfer agreements and the uniqueness of the partnerships being created between two institutions. The increases in agreements of this kind were cited in many of the documents reviewed and are showcased on the OPTG. As time has progressed, these agreements have been applauded for their contribution to the system, but commentary about the need to expand to multilateral agreements has become a well-defined ambition.

Asymmetries

Asymmetries were identified in areas where administrators (Government) would directly benefit from additional information about the credit transfer process from Government (administrators). While the examples provided do not represent an exhaustive list, they do showcase key examples where administrators have or desire more information.

University administrators stated that centralized databases containing credit equivalencies assist in providing consistent and objective credit evaluations. Reviewing and updating those equivalencies housed within the database and articulation agreements (print and web materials) annually by discipline must occur for the distribution of accurate credit evaluation information. Numerous universities had developed or were in the process of developing internal centralized databases. While ONCAT recently launched a course-to-course section of the OPTG on January 20th 2014, many administrators have been actively addressing this issue for several years. Institutions have collected a great amount of information about course-to-course equivalencies throughout Ontario, which has only recently been shared with Government and ONCAT.

Advisor/counsellor and student needs demanded this type of information source. Centralized databases are a mechanism for students to predict, in advance, the amount of credit they will receive. While 'rules' or course-to-course equivalencies will not exist for every course, foundational courses among others are included. Administrators also emphasized that centralized databases are "one step of a two-step process when reviewing credits." A review conducted by an advisor is crucial when evaluating more specialized credit equivalencies and combinations.

Second, issues were raised concerning the transition from paper procedures to electronic administrative management systems/degree planning tools. Administrators discussed the strengths of these systems for themselves and students. Such systems typically allow for the submission of credit transfer applications and required documentation, the posting of evaluation results, viewing of academic history and degree planning in consideration of awarded credit. Yet, administrators discussed that although Government has provided financial support to facilitate this transition, there has not been a matching of informational resources to ensure the programs are harmonized across institutions. This 'carte-blanche' approach of promoting electronic systems ultimately results in increased uncertainty for institutions on how to properly implement these platforms as well as greater confusion for students forced to learn and manoeuvre various tools.

Lastly, administrators discussed research priorities with regard to credit transfer and the development of tracking mechanisms (ex. previous registrations, value-added, student satisfaction and employment outcomes). One administrator explained, "I don't think we've done a whole lot on the success rates of students. Are we helping them or not helping them by doing it the way we're doing it? We haven't done enough in my view to assist students with transferring." Such priorities would be enhanced by an increase in communication and data sharing at the system level.

Over time, many institutions have invested resources to improve administrative approaches to credit transfer. As a means of improving efficiency, such information and strategies should be publicized and adopted across the system rather than continue to function in a localized, institution-specific manner. Administrators discussed the desire to learn from their colleagues about methods and strategies used for data collection, database construction/expansion,

management system/degree planning tool development and policy improvement. Encouragingly, Government and agencies have begun working on a number of the items administrators identified since the announcement of the new credit transfer framework, which will impact information collection, retrieval, renewal and circulation.

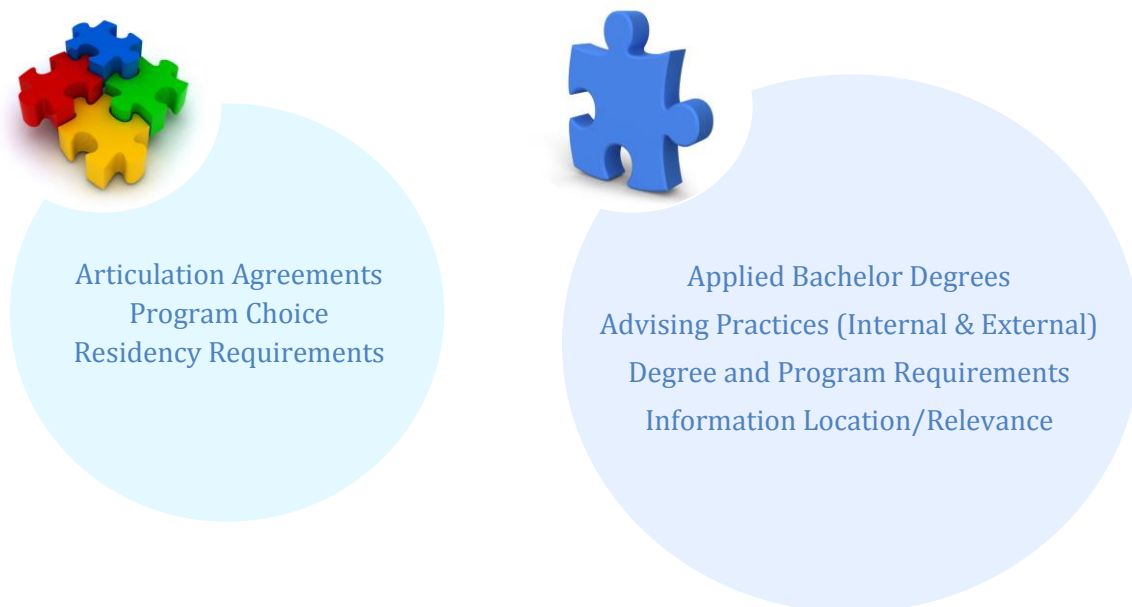
Institutional Administrators and Students

In Phase II, senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff were asked to complete an information matrix: 1) identifying areas of student clarity and confusion with both internal and external credit transfer information and 2) identifying their own areas of clarity and confusion (see Appendix D). Several meaningful symmetries and asymmetries were identified between institutional administrators and students.

Symmetries

This section details areas of the transfer process where shared information exists between institutional administrators and students. Participants identified seven common overarching areas that contain symmetries of information: 1) *Articulation Agreements*, 2) *Program Choice*, 3) *Residency Requirements*, 4) *Applied Bachelor Degrees*, 5) *Advising Practices (Internal and External)*, 6) *Degree and Program Requirements* and 7) *Information Location/Relevance*. Identified areas where shared clarity and confusion exist are shown in the circles below (clarity-left circle; confusion-right circle) (see Figure 2).

Figure 2 | *Areas of Informational Symmetries between Administrators and Students*



The two most frequently-discussed areas will be elaborated upon herein; limited space does not permit a discussion of the others. Articulation agreements were identified as the most common area where items of shared clarity exist between administrators and students. At colleges with a multitude of agreements, participants stated that there is an awareness of the partnerships in place and the associated benefits: “The awareness. Our students are using terms like ‘joint program’ or ‘partnership’. They are speaking as we talk right from the beginning. So, all of our students are potential transfer students They are not actual transfer students, but they are well aware of what the agreements are, and in most cases we have a fixed GPA.” Others commented, “Students know we have agreements, that there are agreements and with which institutions.” Articulation agreements were cited as the pathway of choice for many students when planning their education: “The vast majority of students are hoping to get into a university program with which we have an agreement, to get their undergraduate degree.” Students are aware of the advantages of combining practical hands on experience with theoretical concepts. Moreover, they recognize that formal articulation agreements generally guarantee the largest amount of credit upon application to university.

However, administrators were also quick to comment that it can be difficult for students to comprehend and apply the information posted within articulation agreements to their specific situation. At times, the terms used within the agreements vary and the same information is not posted in every agreement (ex. contact, terms for renewal or cancellation, eligibility and credits received). While the OPTG requires the use of an articulation agreement template, when agreements are publicized on institutional websites a common structure is not always adhered to.

Particular items of shared confusion between administrators and students are presented in Table 4. The two columns display the breakdown between those items identified by both college and university participants and those solely identified by those at the college or university. *Although administrators at Ontario colleges and universities may sometimes feel like they are divided when it comes to credit transfer, this table reveals items of similar dialogue and debate.* Applied bachelor degrees were identified as the most common area where items of shared confusion exist. Participants discussed the multiple questions they have surrounding these degrees and their role in the Ontario postsecondary education system. One university advisor stated, “Degree programs from the colleges. There exists confusion about equivalencies and there remains a good deal of misinformation. What is the volume of these programs? What is available? Why are they treated as a secondary degree?” Another advisor questioned how students are coping: “I think it causes confusion at this level. I can’t even imagine how the students may be doing it. ‘I do have a degree from a college. It says degree. Why are you not treating it like a degree?’” College participants noted that universities are beginning to come on board; however, they are still reluctant to recognize applied bachelor degrees at times. One administrator remarked, “Our new degree programs, people ask, ‘are they real?’ ‘Well, yeah they are.’ There’s a bit of resistance from the ‘Old Boys’ Club’, saying

we offer degrees only. The College offering Business degrees is receiving some backlash.” Regardless, the most stimulating conversation surrounded motivation for colleges to participate in credit transfer activities in areas where they could retain their own students: “Our Marketing and Communications Department has concerns ... there are concerns amongst our College’s deans that if we have articulation agreements ... college-to-university that we might be cannibalizing our own degrees.”

Table 4 | *Informational Symmetries between Administrators and Students*

University	College & University
<p>Timing and Method of Transfer Credit Evaluation</p> <ul style="list-style-type: none"> Pre or post admissions Automatically assessed or application required 	<p>Applied Bachelor Degrees</p> <ul style="list-style-type: none"> Evaluation of credit when transferring from an applied bachelor degree to university Role of college degrees in applied areas of study
<p>College</p> <p>Information Location/Relevance</p> <ul style="list-style-type: none"> Tracking down information and wait times at universities Data sharing between institutions and professional associations Contact information for established articulation agreements <p>GPA Calculation</p> <ul style="list-style-type: none"> Varying GPA formulas (program versus cumulative, permitted course repeats) <p>Terminology</p> <ul style="list-style-type: none"> Articulation agreements (varying terms and language used) Credit value/hours (full versus half credits etc.) <p>Applicant Pool</p> <ul style="list-style-type: none"> Quota of reserved seats for college transfers 	<p>Advising Practices</p> <ul style="list-style-type: none"> Communication lines between colleges and universities Multi-campus distinctions in policies and procedures High school guidance counsellors’ advisement practices regarding pathways <p>Degree and Program Requirements</p> <ul style="list-style-type: none"> Switching majors High demand programs and additional requirements <p>Information Location/Relevance</p> <ul style="list-style-type: none"> Internal contact information and resource sharing between units Publishing and updating transfer agreements internally (web) Setting research priorities (credit transfer activity/outcomes/(dis)advantages) Consistency of information and level of guidance provided Ease of access to information ONCAT Portal

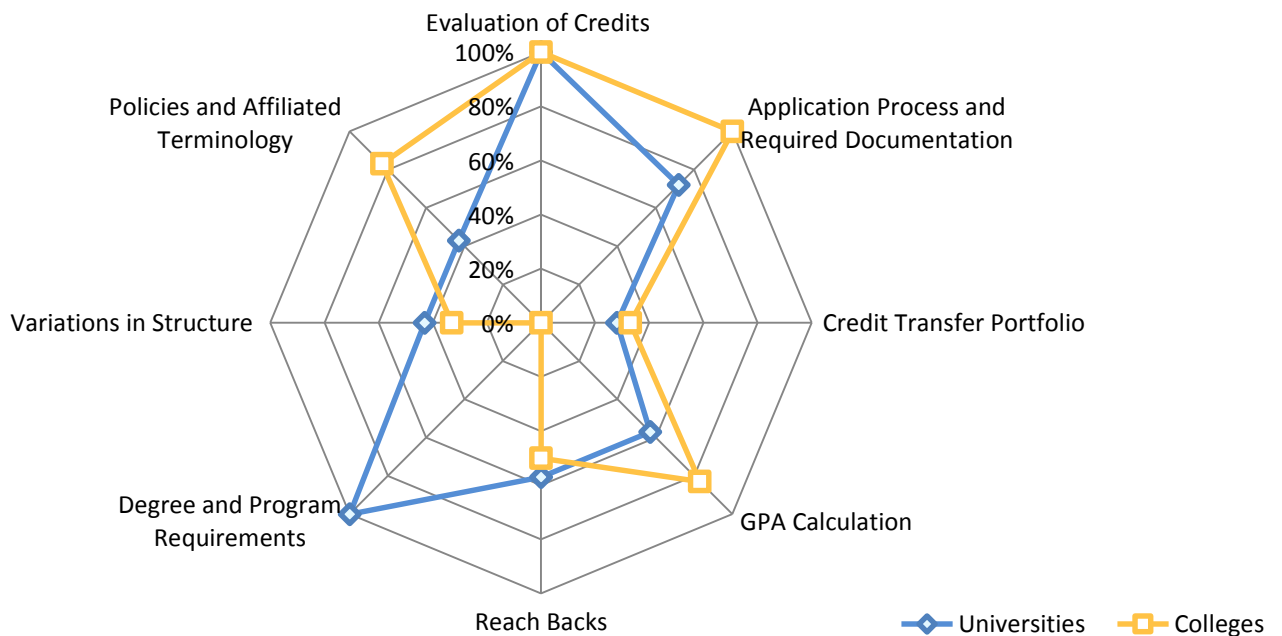
Overall, while participants identified appreciably more areas where shared confusion exists than shared clarity, this finding is positive in that administrators acknowledge questions they currently possess about the Ontario college-to-university credit transfer process and outcomes. Moving forward, it is imperative that these questions, among others, are resolved and supports are put in place to minimize any misperceptions. As Government continues to advance the new credit transfer

framework, the development of transfer recommendations and resources for both students and administrators are necessary.

Asymmetries

Asymmetries were identified in areas where students would directly benefit from additional information about the credit transfer process from administrators (Government). Participants identified eight common overarching areas that contain asymmetries of information: 1) *Evaluation of Credits (Advanced Standing, Direct Entry, Equivalency etc.)*, 2) *Application Process and Required Documentation*, 3) *Credit Transfer Portfolio (Location, Unit[s] and Personnel Involved)*, 4) *GPA Calculation*, 5) *Reach Backs*, 6) *Degree and Program Requirements*, 7) *Variations in Structure (Institution and Program Type)* and 8) *Policies and Affiliated Terminology* (see Figure 3). The spider graph depicts the percentage of colleges and universities involved in the study that identified each area. For example, 100 percent of the colleges and universities involved in the study identified *Evaluation of Credits*, as an area where confusion exists for students. On the other hand, 83 percent of colleges and only 57 percent of universities involved in the study identified *GPA Calculation* as an area where confusion exists for students.

Figure 3 | *Informational Asymmetries- Comparison Colleges and Universities*



A comparison of college and university data reveals that specific areas are listed more frequently by colleges than universities and vice versa. The *Application Process and Required Documentation*, *GPA Calculation* and *Policies and Affiliated Terminology* were listed more frequently as areas where confusion exists for students by college participants than university. *Degree and Program Requirements* and *Variations in Structure* were listed more frequently as areas where confusion exists for students by university participants than college. The particular items that lie within these frequently listed areas and the corresponding supporting evidence will be discussed in more detail herein.

Evaluation of Credits. All colleges and universities involved in the study identified *Evaluation of Credits* as an area where confusion exists for students. Several themes emerged within this area (see Table 5).

Table 5 | *Themes: Evaluation of Credits*

PROGRAM AFFINITY, EQUIVALENCIES & RECOGNITION	<ul style="list-style-type: none"> ▪ <i>Students express frustration over their attempts to determine the amount of transfer credit they will receive upon applying to university.</i>
ADVANCED STANDING	<ul style="list-style-type: none"> ▪ <i>Students require clarification with regard to the concept of advanced standing and the accompanying conditions.</i>
RE-EVALUATIONS	<ul style="list-style-type: none"> ▪ <i>Degree and faculty changes made by students throughout the course of their education may require transfer credit re-evaluation, additional advising and a reconfiguration of program plans.</i>

Program Affinity, Equivalencies and Recognition. Program affinity is a concept that often misleads students attempting to calculate the amount of credit they will receive. Participants explained that students often state that they understand the importance of program affinity but, when the times comes for them to review their individual credit evaluations, they are bewildered:

- “They're [students] coming from a Business diploma at a college, and they want to go into Landscape Architecture at a university, I think they get that they are not aligned. That they are different However, when you get down to the nitty-gritty of what courses they're going to get from Business to Landscape Architecture, it is probably going to be a grand total of one, if any. Then they're like, ‘whoa, wait a second. I did a three-year diploma.’ So again, I think they understand the words, but when it comes right down to them looking at their case, I don't think it makes as much sense as when it is black and white.”

- “Students are confused about the number of credits they are receiving, because they may be applying to Science where they will get 30 credits, but also applying to Engineering where they are getting 18 credits. ‘Why am I not getting the same thing? I am graduating from the same program from the same college; I am applying to the same university?’”

Students tend to think that their case will somehow be different than those that have come before them. Faculty summarized that, while some students are satisfied to switch program areas regardless of awarded credit, others regret not having made more aligned program choices.

Equivalencies can be a challenge for students to comprehend. They are subject to degree, grade, course level, program requirements and academic prerequisites. In addition, students must be aware of external accreditation requirements, which can affect equivalency/amount of credit awarded. This is illustrated in the example above, where it is important to note that Engineering applicants typically will not receive credit for Engineering related discipline courses for programs not accredited by the Canadian Engineering Accreditation Board (CEAB).

Advisors/counsellors stated that during advising appointments students often exclaim:

“Why am I not given credit for everything I did at college?” Not understanding that they made a choice to go to college, it’s different. They may not have the requirements that the university stipulated. I start there ... those are two really good reasons why you’re not going to receive credits. These are different institutions.

Many students feel that all of their college education should be transferred; two years of education should be equivalent to two years of education. Students are often not aware that multiple courses at the college level are considered to be equivalent to one course at a university. One advisor clarified: “They [students] don’t feel they’ve got enough credit, but they tend to understand when you explain to them this many courses at a college with this average gives you this at a university.”

Frustration can ensue when students feel their previous college education is not being recognized at the university level: “You know, they [students] spent three years doing something and then they finally get very little in terms of recognition. So I think they think that’s a real turnoff. So they would like to know more about their options right from the beginning.” Another participant stated, “Students should be aware of how much recognition they will receive. Shopping around? Often they think their college education is the ‘bee’s knees’, but what is granted credit is not always clear.” Advisors/counsellors commented that the amount of misinformation students acquire demands attention: “We have individuals that go to a college program and they are given misinformation saying if you take this to your university program you will get 14 credits, which then they find is not true.” When students overestimate the amount of credit they will receive, it can become difficult for

them to complete their remaining education. Faculty and advisors/counsellors stated that anticipated plans can shift quite quickly: “They get hit with a wall. ‘I realize, my goodness, I have to do six extra credits to reach maximum and I didn’t get this transfer credit. Now it is going to take me two and a half years, and then there is a funding issue because I thought I only had two more years.’”

Advanced Standing. Students commonly have questions regarding their academic year of study and remaining coursework.

- “They’ll get an advanced standing letter from admissions and they’ll still call. They have no idea about what it means. So that’s where we have to guide them through and discuss how it’s going to fit.”
- “For us advanced standing means any transfer credit, whereas students when they are asking about admission they often call us to ask ‘what level should I pick? I’m a postsecondary student should I choose on the application that I want advanced standing or... ? They don’t understand what advance standing means to us.’”

Typically, advanced standing refers to *students admitted to a second or higher term or year of a program because of transfer credits granted for courses completed at another institution*. However, this definition diverges across institutions; there are examples, like the institution described above, where advanced standing refers to *any awarded transfer credit*. Students investigating/applying to a variety of institutions must keep track of these differences, ultimately learning to speak several ‘transfer dialects.’ With regard to credit evaluation, comprehension is important when adhering to conditions/guidelines and predicting awarded credit.

The conditions required for advanced standing, if overlooked, can result in student disappointment. One advisor provided a useful example:

To receive advanced standing [awarded credit] you have to have completed [a specific number of sessions] in the same program. If there is a change of program, then they’re not eligible for those credits. And they, well, some of them, I won’t generalize, but some of them don’t realize that that’s one of the conditions. So when we have to withdraw the advanced standing, there is great confusion there.

University policies dictate the amount of credit students are eligible to receive and their advanced standing designations. All the universities in this research study have set requirements regarding who is eligible for transfer credit based on the amount and level of previous college education obtained. They also have set methods for conducting credit evaluations.

Re-Evaluations. Students must be aware of universities' methods and sequences for conducting transfer credit evaluations. If the credit evaluation is program based, students may require a re-evaluation when switching majors or declaring a minor: "When transferring degrees or faculties students may need to be re-evaluated for credit. For example, if you switched majors from Anthropology to History, the college transfer student would not have been evaluated for credit for a B.A. in History." Ensuring students seek advisement when switching majors is critical. As one participant stated, "Re-evaluation after an internal transfer is the responsibility of the student to request." Full versus program based evaluations varied among the institutions in this research study. One administrator described the adjustments her institution has made over time:

We went back to giving a full assessment ... because they [students] may change after year one and have to go back to Admissions I think that was a huge change, advising them that they may not all fit [credits] and the reason they don't all fit is because after first year you may not choose to stay in Business or Visual Arts, and you can re-assess using those.

The advantages and disadvantages of each method must be weighed.

Application Process and Required Documentation/GPA Calculation/Policies and Affiliated Terminology. Colleges involved in the study identified the *Application Process and Required Documentation, GPA Calculation and Policies and Affiliated Terminology* as areas where confusion exists for students. Several themes emerged within these areas (see Table 6).

Table 6 | *Themes: Application Process and Required Documentation/GPA Calculation/Policies and Affiliated Terminology*

ENROLMENT & FOLLOW-UP	<ul style="list-style-type: none"> ▪ <i>Credit transfer students experience a multifaceted enrolment process (admissions applications, submission of documentation for transfer credits, additional fees and follow-up advising).</i>
ADMISSIONS CUT-OFF AVERAGES	<ul style="list-style-type: none"> ▪ <i>Institutional admissions averages are dependent on discipline, applicant pool, annual targets and funding. The shifting nature of admissions cut-offs often proves difficult for advisors/counsellors and students for whom ranges must be used.</i>
GRADING SCALES & GPA CALCULATIONS	<ul style="list-style-type: none"> ▪ <i>Varied grading scales, GPA calculations and regulations regarding course repeats cause confusion for students.</i>
POLICIES & TERMINOLOGY	<ul style="list-style-type: none"> ▪ <i>In order to function in a university setting, students must acclimatize to a new set of policies and terminology. This adjustment can prove difficult for students engrained in a previous institution's culture and procedures.</i>

Enrolment and Follow-Up. The enrolment process for college transfer students is multifaceted with additional steps and considerations. Participants explained, “Students require a better understanding of the timing and process. They must apply for admissions, have their transcript(s) assessed and sit down to speak with an advisor.” Applying for admission to university is only the beginning of a chain of events that must occur before transfer students walk into a classroom. The items listed below encompass the many considerations students must process:

- *Support Services-* “We’ll have students that will call an institution’s Admissions Department and if the person that answers is not the contact I have given them, or referred them to, and they get a general admissions advisor, they’re not going to get the correct information regarding transferability. So, it really is important for students to ensure that they are in touch with the appropriate individuals at those institutions or they will not be informed correctly.” “I have heard confusion from students regarding ‘I hear one thing on the phone one day and somebody is very informed, and then the next...’ It just depends on their portfolio and what they are in charge of.”
- *Documentation-* “The submission of previous transcripts is confusing for students alongside how credit is assessed.” “Students don’t necessarily know why they would go to university or how it’s different. Or they don’t necessarily have a good concept of what a credit or transcript is and what that is used for. They’re still thinking of report cards.”
- *Fees and Deadlines-* “Students often feel like they should pay less because they have prior coursework. However, in transferring credits, additional fees are incurred- fees for transcripts and course outlines. When students become aware of these fees, some would rather retake courses versus taking the time to locate all of the documentation required. Some students would rather retake courses at university and get a better grade.” “One of the things that just really throws college students when they go to apply to universities is the multitude of deadlines. “They offer a February boost right?’ I say, well no not exactly. If it’s Nursing, it’s February 15th, for everything else it’s June 1st, but it might be different if it’s this program and if you want to get records here.”

Locating support services can be confusing for credit transfer students. Additionally, roles and responsibilities regarding various units’ involvement in credit transfer are not always clear. Administrators explained that students experience difficulty locating reliable information: “Who is responsible for different roles when it comes to credit transfer or even program planning? We’ve had students who have gone to the Registrar’s Office and those who have gone to their department and talked to faculty members.” If students do not possess the correct contact(s) they may receive incorrect or incomplete information.

Similarly, students themselves must be willing to provide complete information about their previous postsecondary education upon transferring. Declaring all previous postsecondary education and providing the correct supporting documentation is important when transferring to university; a proper credit evaluation (academic year of study, required coursework etc.) is on the line. Students may be asked to provide the following documentation: transcripts, course descriptions, course outlines, portfolios and confirmation of co-op hours among other items. Credit is assessed based on these items and may be delayed until each has been processed appropriately. Advisors/counsellors discussed the importance of students keeping their course outlines and descriptions: "Every teacher in every college and university has said to them [students] on the first day: 'Here's your course outline, keep this for the next 25 years. You don't know when you're going to need it.'" Unfortunately, if students do not keep their original copies, retrieving them later can be difficult: "On the college end, it's not always easy for students to get access. After they leave the college, they can't go back, it's very hard. It's even hard for us to go back, 5-10 years later, to get there in time." Several participants commented on the need for electronic archived copies of course descriptions and syllabi for both administrators and students. At one institution, an archived system which sorts course outlines by program and course number is already in place and was described in detail.

Finally, fees and deadlines vary by institution and program. Transfer students typically incur additional fees upon applying for admission: "Every single time they request to transfer there's a fee, it doesn't matter if it's from us [college] to them [university], them to us, back and forth, and at the end of the day some of our students are requesting as many four transcripts. That's a lot." While some institutions have an omnibus fee, others charge separately for each transcript. Further, some institutions have a transfer credit evaluation fee that students must pay in order to have their previous education assessed upon admission. Participants commented that deadlines for admissions applications, transfer credit evaluations, course registrations and program major and minor declarations can be difficult for students to digest. Students applying to multiple programs and institutions may initially encounter several different fee structures and deadlines.

Admissions Cut-Off Averages. Participants overwhelmingly discussed institutional admissions averages; averages are dependent on discipline, applicant pool, annual targets and funding. However, the shifting nature of admissions cut-offs proves difficult for advisors/counsellors and students for whom ranges must be used. Averages can rise or fall year to year and students attempting to make last year's cut-off can at times be disappointed. College advisors/counsellors described the issue: "'3.0, okay, I'll do that.' But then it's not 3.0. It sometimes floats up. And all of a sudden they [students] feel as though they've been robbed. You know, 'I received a 3.1. Why didn't I get in? I mean, we're just it, right? It's based on last year?'" However, it is not feasible for universities to state yearly cut-offs, as these determinations are not made until

the applicant pool and funding considerations are accounted for. One college advisor explained the situation:

It's very difficult, I think, for universities to give specific grade points without being committed to it. You have a target to meet, right? Meeting the target may require that you have to work with that range a little bit so that you don't over commit or you don't under commit, right? If you say, "Okay, 2.5. You're definitely in," it's very difficult to do that.

Others commented that some students do not view cut-offs as rigidly as they should: "A number of students, although you can say the words to them, and they can say 'Yes, this GPA is required,' when it comes down to it they ask: 'If I get a 2.94? That's probably close enough, right?' They don't really get it." Students must obtain at least the minimum GPA and often they will require grades above that which is stated.

Grading Scales and GPA Calculations. A number of grading scales are in place across Ontario institutions. These systems can be confusing for students trying to predict how their college average will be calculated by universities upon application. What point scale will be used? What courses will be included? Is it a cumulative average? Do course repeats count? Participants commented on why student confusion exists, stating, "I think sometimes they [students] struggle with the GPA notion. We [colleges] deal with letter grades where the university will have numeric grades." Often, students are confident in their academic standing, but wonder how their grades will be perceived in a university setting. What regulations are in place that they are not aware of? Advisors/counsellors clarified the areas of student concern,

They [students] don't know on the other end in the university zone who is looking at their GPA, how is it being perceived, does the university know what the GPA calculation measures are for the college in question or do they see a C+ and it is in a different numeric category than what the college deemed it to be?

Discussions revolved around examples of varying college and university practices with few black and white answers: "Each grading scale varies along with the policies and what is transferred."

Policies and Terminology. Acclimatizing students to varying university policies and terminology during the transfer process can be a challenge. University administrators and advisors/counsellors stated that students generally possess a good understanding by the end of their first semester. The difficulty occurs while students are applying to universities from college. The rules and regulations in place at the college they attended are not universal throughout the system. First, advisors/counsellors explained that students can experience problems with rudimentary terms: "Students coming from a college environment going onto university have some trouble understanding the terms required: honour's degree, undergraduate degree, major and specialization." Others commented that the term 'credit' itself can be rather difficult to comprehend,

as many college students are used to course hours, and university credit systems typically vary (3/6 credit courses versus .5/1 credit courses).

Moreover, some students struggle with the very terminology that defines their transition. Program lengths and the types of transfer models in existence can be a challenge to process. Participants commented, “Often with our programs, we refer to them in length of time, so two-plus-two or three-plus-one or three-plus-two. Students look for clarification around those terms. ‘What does that actually mean when you’re telling me I qualify for a two-plus-two?’” Another advisor stated, “A lot of students feel there are too many road blocks. Anyone who’s had exposure to the United States system or what goes on in other provinces, they know that the standard model in North America, everywhere but Ontario, is two-plus-two.” Students who are familiar with these alternative North American models often feel discouraged when they realize they may not experience the same level of planning and coordination in the Ontario context. Numerous focus group sessions centered on the need to place students’ information needs first: “There is not enough of an emphasis on ensuring that whatever we design will specifically meet students’ communication and information needs ... We need to make it clear that the ultimate stakeholder is the student and let’s not design collaboration to be impossible.”

Degree and Program Requirements/Variations in Structure. All universities involved in the study identified *Degree and Program Requirements* as an area where confusion exists for students. Several identified *Variations in Structure* between the college and university sectors. Two themes emerged within these areas (see Table 7).

Table 7 | *Themes: Degree and Program Requirements/Variations in Structure*

APPLICATION OF CREDIT EVALUATION	<ul style="list-style-type: none"> ▪ <i>Regardless of the program, it is important that students understand their transfer credit evaluation and how it applies to both degree and program requirements.</i>
PROGRAM FLEXIBILITY	<ul style="list-style-type: none"> ▪ <i>University programs are less prescribed than that of the colleges; students manage their own course selections. Given this flexibility, students have the responsibility of determining how they wish to proceed in achieving their degree.</i>

Application of Credit Evaluation. Students are often so focused on the number of credits they will receive that they do not contemplate the type of credit awarded. One administrator stated, “Applying for credit and getting credits on your record is really just the first step and there is a lot of follow-up on how some of these credits are used, like generic credits. They are used differently

by every faculty.” Participants named a few key concepts students must remember when viewing and acting upon their credit evaluations:

- *Generic, Unassigned, and/or Unspecified Credits*- “Understanding what a generic credit can and can’t do. It can’t fulfill a program requirement so there are some students who don’t quite understand how they use the generic credit to their advantage towards their degree and then being able to explain and clarify that.” “For two years of college, we give two unspecified credits for an academic program. How those two unspecified credits play into their degree requirements, they’re sometimes unsure in a sense and feel that those two credits can be used to meet program requirements.”
- *Exclusions*- “If students have a course with an exclusion, depending on what course it is that they were excluded from and the level of the unspecified credit, we would take it or we would give it an alternative. But those arrangements are made by each individual department because we sign off on their program.”
- *Level of Credits*- “Sometimes students receive something like five transfer credits and they are all at the 100 level and then they come here and because they can’t use those credits towards the program ... the program requires three credits at the 100 level, a lot of times they’ll say ‘can I get rid of those transfer credits?’” “When we do the assessments we do try and make them most beneficial for the students. If we see that they do need to take X amount of first year credits, we try not to give them too many so they are in a predicament where they can’t take the required courses. It’s not helping them.”

The role of generic, unassigned and/or unspecified credits was raised by several participants as an item students struggle with once they receive their credit evaluations. Generic, unassigned and/or unspecified refers to *credits given for courses with no exact equivalent at the university or for a course where no equivalent discipline exists*. Contrastingly, assigned or specified refers to *credit given for a fully equivalent course in content and level of study*. Generally, generic, unassigned and/or unspecified awarded credit may not be used to fulfill program requirements (unless permission is obtained from a program/department advisor) but may be used to fulfill degree requirements. Restrictions and usage vary by university. Student advisement is often necessary:

Students need much more counseling “I can look through the Faculty of Arts and Science Calendar, can see what my program requirements are but I don’t really know how this all works. Because I’ve been somewhere where my program has been set up for me and now here I am, I find out I have program requirements and degree requirements.” We say they are separate and yet they overlap. So what does this really mean? “How is it that I’m going to actually receive that degree?”

Many stated that “the devil is in the details” as students may be awarded a significant number of credits, but they may not be applicable to their program and/or degree requirements. One participant explained, “Students think because they are eligible for a certain number of credits, that means their degree will be expedited for graduation. However, this is not always the case. Unspecified credits are the greatest queries we receive.”

Students may also be awarded generic, unassigned and/or unspecified credits with attached exclusion(s). In these cases, course exclusion(s) may be noted barring enrolment in similar course(s). Students are not able to enroll in courses listed as exclusion(s) on their transfer credit evaluation, unless required to do so to meet program requirements. Exclusions refer to *a significant overlap in course material such that students may not count both the awarded credit and the noted course credit exclusion(s) for degree credit*. Participants noted that when students are required to enroll in a course(s) listed as an exclusion(s) to meet program requirements, confusion can ensue. Arrangements must often be made at the departmental level in order to determine how students will proceed.

Program Flexibility. University programs are less prescribed than the college programs with which students may be accustomed. One advisor explained, “Especially when college culture is a little more prescribed like high school culture was College is less of a shock than coming into this totally different system in the university where we’re all so different.” Universities require students to register for each course they wish to enroll in (predetermined blocks are generally not provided). Elective credits and breadth requirements encourage students to enroll in courses across disciplines. For example, one faculty member stated,

In the Faculty of Arts, we have a multitude of programs, and the structure of the programs is not as defined as it is in other Faculties, Health Sciences, for example. You have a series of core courses and a couple of electives here and there. In the Faculty of Arts, it is somewhat the opposite. You have a lot of electives, with a small number of disciplinary courses. So transfer students coming from colleges, when they are admitted, let's say in a major, we say, “Well, you can't graduate just with a major, you've got to add a second discipline to your program, either another major or minor.”

Participants commented that students might not be used to making fundamental program decisions. Advising around these decisions and the timing in which they are to be completed may be required. Further, administrators remarked that part-time and full-time status impacts the structure of a student’s program:

They're [students] not used to being able to flip between part-time and full-time. For us it's just the number of credits you're taking. There's no prescription of courses you need to complete this year in order to move onto next year. It's a totally different culture in terms of understanding how you choose courses and progress through your degree.

Students must develop an individual plan for the completion of their coursework. Transfer students have the responsibility of ensuring this plan incorporates potential bridge courses/programs, reach backs and awarded credits.

The next section brings together the findings regarding the information that Government, agencies and institutions provide to students to proceed in college-to-university credit transfer and the (a)symmetries in the current transfer information system. A discussion of the internal and external factors that impact on the performance of the current credit transfer information system and the formation of an action plan to fill information gaps is outlined.

Discussion and Conclusion

III. Identification of Internal and External Factors that Impact on Performance and the Formation of an Action Plan

This report concludes with implications for practice. The findings from this research are considered in terms of the internal and external factors influencing the efficiency of the credit transfer information system. Concepts from contract theory will guide this discussion.

Private Information

The conventional model of adverse selection is based on one-dimensional private information (Akerlof, 1970). Private information refers to *information that is potentially valuable to both parties but is held by only one party in a possible transaction*. In the adverse selection model, one party lacks information while negotiating an agreed understanding of a transaction. In the credit transfer information system, this research study suggests that both institutions and students in the transaction withhold, fail to reveal, or are unable to fully disseminate private information throughout various points in the credit transfer process. The university requests personal information from the student in order to provide a sufficient offer of admission. However, university admissions officers may not know a transfer student's true skill set or qualifications if he/she does not reveal personal information in his/her admissions application or subsequently in his/her credit transfer application(s). Likewise, the student requests personal information from the institution, collected via advising, websites and print materials. However, when information is not clearly outlined for the student regarding the transfer process or information is not made available,

the student may not know the true skill sets a university demands or the qualifications required for admission. A few popular examples given during the course of this research study are provided to demonstrate each point.

Students' Private Information

Throughout the research study, participants detailed multiple circumstances where students may not reveal their true skills and qualifications. The first overarching example is when students do not present all of their past educational experiences through the submission of transcripts. Participants described that they are often at the mercy of students to declare all previous education to ensure proper program fit and avoid repetition of previously completed coursework. One advisor stated, "There is no database for us to check We have to make sure that we rely on the students to tell us what institutions they have been engaged with across the province." If students applied and were unsuccessful at other institutions, advisors/counsellors require a record of that information; past experiences at another college or university should be automatically disclosed. The Ontario Education Number (OEN), when fully implemented, should reduce the administrative demands connected with the collection and reporting of data (Ontario Ministry of Education, 2013). Currently, students may choose to purposefully keep this information private despite policies stating they must reveal all previous education. Administrators explained that some students wish to keep unsuccessful previous coursework and grades private so as not to influence admissions and/or transfer credit decisions. Other examples provided surrounded student delays in submitting the documents necessary for credit review and the difficulty of obtaining these documents. At times, administrators stated that students may experience difficulty locating previous course materials once they have left the college. College systems often do not allow students to search these documents once they have left the system and therefore accessing course descriptions and outlines on platforms such as Blackboard and Sakai is not possible. When students are unable to retrieve these documents, what is presented to the university for review can contain incomplete information.

In both cases, internal factors within the credit transfer information system can be altered to meet stakeholders' needs. *A searchable centralized database for identifying previous student registrations and the electronic archiving of course outlines/descriptions will assist advisors/counsellors when conducting transfer credit evaluations. Reliable mechanisms to collect and access student data across institutions are pertinent to a well-functioning credit transfer system.* Data regarding mobility is useful both for admissions and advising purposes. The institutional archival of course outlines and descriptions for access by administrators and/or students are integral for determining learning outcomes and previous course material covered during credit evaluations. Furthermore, students applying for course-to-course credit, not listed on the OPTG, are required to submit this

information to each receiving institution. The development of an electronic data interchange platform between administrators across institutions could minimize this paper trail.

Institutions' Private Information

Administrators discussed the need for more transparent policies surrounding credit transfer in the province. Within the new credit transfer framework, participants identified moments where both students and they feel that information is not revealed. While a certain amount of information was discussed as being difficult to comprehend or locate, there were also identified gaps. Applied bachelor degrees were a source of confusion raised by several advisors/counsellors. *The role of the college in the postsecondary system has evolved over the last decade. With the offering of applied bachelor degrees, there is a duty to consider the mobility needs of students enrolled in these programs who wish to transfer both during and upon completion of their studies. Instituting and publicly posting policies regarding the evaluation of applied degree credits at Ontario universities is crucial for academic and system planning purposes.*

The role of applied bachelor degrees in the current credentialing system in Ontario is largely debated. As such, applied bachelor degrees are considered an internal factor influencing credit transfer. One participant stated “Some colleges offer, they have the college diplomas, but they have as well the applied bachelor degrees. And, we don't recognize them as university transfer credits. So we treat them as if they're in a diploma program.” Another commented, “I think that one of our [college] students going from a degree to a university Master's program, or graduate studies, is actually less challenging than one of our degree students wishing to leave our degree and go on to a university degree and get course-to-course recognition.” Currently, information regarding how applied bachelor degrees are assessed at Ontario universities is generally not posted publicly. While some evaluate applied degree credits as university credits (course-to-course), others acknowledged evaluating them as they would college diploma credits (combinations of courses equaling one university course). While policies may vary by institution and program, students should be provided with this full information.

Further, *heterogeneity in academic regulations across institutions (ex. grading scales, GPA calculations, credit values/weight, credit evaluation fees and timing, course repeats and declarations of previous postsecondary education) often results in disconnected advising practices.* Presenting this amount of information in a clear and concise manner can be difficult. One central issue that was discussed throughout each of the focus groups was the lack of information with regard to GPA conversions and the weighting of courses/units across Ontario institutions. Varying grade point scales are in place across all Ontario universities (see Table 8).

Table 8 | *Ontario University Grade Point Scales*

Point Scale	University
4.0	University of Toronto
4.3	Ryerson University, Queens University
9.0	York University
10.0	Ottawa University
12.0	Carleton University, Wilfred Laurier University, McMaster University
13.0	Windsor University
100%	Algoma University, Brock University, Guelph University, Western University, Waterloo University, Trent University, OCAD University, Laurentian University, Lakehead University, Nipissing University, Windsor University

Note: Table adapted from University of Windsor Senate. (2011). *Grading Scales*. Windsor: ON.

One faculty member stated, “There should be a generic scale that we have in our course outlines. Do a conversion between a GPA and a letter D grade, as a percentage.” Participants commented that students often wish to calculate their cumulative averages both at the college and as it converts to various universities. Lack of information surrounding conversions among institutions in the system largely impacts students trying to determine the grades they require for both admission and transfer credit eligibility. Moreover, some transfer students focus on repeating coursework to improve their average, making active decisions to signal to universities their capabilities.

Practical solutions regarding the improvement of internal information regarding GPA calculations were discussed: “Some colleges and universities have a GPA calculator which is attached to their systems. Students enter their grades and play scenarios. If I retake this D and I get a B what happens? If we could have that on the system for student access What a great tool to have for degree transfer.” At the provincial level, some college advisors/counsellors discussed having collected each Ontario university’s grading scale and formula as a means of creating their own conversion document. Access to internal GPA calculators and provincial conversion documents are essential for students basing their institution and program decisions on these projections. Provincial level solutions can also be evidenced in Alberta, where in 2001, the Universities Coordinating Council, responding to an initiative by the Alberta Council on Admissions and Transfer (ACAT), made the decision to have Alberta’s four universities and five university colleges adopt a universal 4.0 grade point scale. The purpose of the initiative was to identify an academically sound grading scale to meet student needs and facilitate simplified transfer within the province (ACAT, 2001; 2002; Jabbour; 2002).

An external factor affecting student information was identified in the high school system, where guidance counsellors have the opportunity to support college and university collaborative efforts and innovative programming/pathways. *Educating students about credit transfer pathways and institutional offerings earlier in their educational careers will improve knowledge about the function and flexibility of a postsecondary education. High school guidance counsellors are necessary conduits for information dissemination.* However, participants were often wary about misinformation and lack of information about credit transfer at the high school level. One participant stated,

They [guidance counsellors] certainly don't understand the potential to transfer, articulate to university beyond college. So if they do not understand what college can offer, then certainly they need some education in terms of completing a three-year diploma program as a first choice, and then down the road pursuing an available pathway.

College faculty members spoke a little about the difficulties they experience when leading information sessions at regional high schools: "We saw almost 5000 [students] from Grade 10 and 11, and the only thing we talked about is degree programs. We introduce them to the concept, you must have degree programs. We described the programs we offer, then after the panel discussion we have a fair or booth and they come and ask questions." The difficulty experienced during these sessions included credit transfer and applied bachelor degrees being cited as a "Plan B" by high school educators.

If the Ontario Government's new credit transfer framework is going to receive the traction it deserves, a culture shift may need to occur. While this pathway largely flew under the radar for years, this new system with all participants on board actively needs to be promoted. High school guidance counsellors should be included in all conversations, conferences, planning and development. Annual OPTG training sessions organized for guidance counsellors (Ontario School Counsellors' Association [OSCA]) and information bulletins regarding recent transfer developments, key partnerships and pilot projects might be effective ways to include these participants. While various communication mechanisms were employed by the CUCC in the past, more targeted, innovative and consistent contact with counsellors is now required. Credit transfer pathways are now a part of the Ontario postsecondary education landscape and the legitimacy of these opportunities should be well known. Students should have access to this information at the high school level by Grade 10 or 11.

Signalling

From the student's perspective, signalling occurs in two stages: 1) students must choose with which universities to communicate and 2) determine what to communicate to successfully be evaluated for admission and transfer credit. College students are typically asked to present the following information at some point during the transfer process: number of previous credits acquired, credits

eligible for transfer, sending institution, program of study, academic prerequisites, transcripts, course repeats, course descriptions, course outlines, textbooks, portfolios, confirmation of co-op hours and reading requirements among other items. Students' literacy surrounding the importance of these items and how they function is integral as outlined by the participants in this research. Students intending to transfer may enroll in a particular college program to ensure program affinity between their prospective university program, enroll in an applied bachelor degree, take particular courses, choose to transfer during or upon completion of their studies, and/or repeat selected courses to improve their cumulative GPAs in order to signal to universities they are admissible.

Choosing with which Universities to Communicate

This research revealed several symmetries when it came to students choosing with which universities to communicate. Administrators stated that students are confident in the following areas: program choice, residency requirements and the use of articulation agreements. They discussed students' ability to select programs at the university with limited difficulty. Many explained that students have alternative program choices selected and develop numerous plans for entry to university. However, comprehending how program choices (mis)align with previous education and how chosen pathways fulfill personal aspirations requires more thought. Second, participants indicated that students are aware of residency requirements and understand that a portion of their education will need to be completed at the university to earn their degree (generally, at least 50 percent of the courses required for a degree).

Lastly, articulation agreements were cited as being well known by students; however, the terms used in the description of these agreements and the structure on institutional websites vary. *Standard credit transfer terminology* (ex. 'credit transfer student,' 'advanced standing,' 'direct entry,' 'equivalencies,' 'exclusions,' 'exemptions' etc.) when writing, structuring and publicizing articulation agreements and transfer models is a priority. *The development of a "Tips for Articulating" guide produced in consultation with institutions will take strides towards the harmonization of credit transfer exchanges.* At one institution, administrators discussed conducting a feedback exercise during recruitment in which students identified the varying language they experienced when reading articulation agreements. The aim of the exercise was to identify inconsistencies among the agreements posted on the institution's website and garner ways to improve student understanding. Participants stated, "Articulation agreements contain different language. That's because they're all established with a partnering institute and those institutions all have their own terms." When trying to determine with which institution to communicate and for what program, students may struggle when the information presented cannot be universally understood. A common language surrounding transfer was emphasized as a priority both within divisions/departments at an institution, between institutions and for use in communication with Government and agencies.

Determining What to Communicate

Students' literacy about the credit evaluation process is an area where signalling can be ineffective if detailed information is not provided. Students should be able to make accurate estimates as to the amount and type of credit(s) they will receive. The exercises conducted throughout the focus group sessions revealed that much of the advising occurring in the province is institutional- and timing-dependent. College advisors/counsellors identified providing assistance with those items that students are concerned about when applying to transfer. University advisors/counsellors identified advising primarily around issues that affect students once they are admitted. *Open communication lines and resource sharing among college and university credit transfer advisors/counsellors is essential. Infusing information about the application of awarded transfer credits (program versus degree requirements; generic, unassigned and unspecified credits; reach backs; and the importance of program major and minor declarations) pre-university enrolment may limit confusion surrounding credit evaluations and time to graduation.* While this 'just-in-time' advisement technique is generally effective, it also leaves something to be desired. Students caught up in signalling their value to an institution may not realize the poor fit and limited recognition they will receive until they are enrolled. For example, from an awarded six credits, only three may actually be applicable to their degree and program requirements. The most commonly-cited item of confusion for students identified in this research was the interpretation of credit evaluations. Advising surrounding this issue could be offered to concerned students in greater detail pre-university enrolment.

In conclusion, in consideration of current student transfer demands, existing regulatory and advising practices and the present state of transfer literacy among stakeholders, the college-to-university transfer information system requires a few fundamental modifications in order to function with greater efficiency for both administrators and students. The current information system requires: reliable mechanisms to collect and access student data across institutions, the development and public posting of policies regarding the evaluation of applied degree credits, practical resolutions regarding system-wide variances in academic regulations, early advisement of students about credit transfer pathways and institutional offerings and open communication lines and resource sharing among college and university credit transfer advisors/counsellors.

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Appendix A

Document Analysis

System-Wide

Institution-Specific

	Student Expectation	Administrative Expectation	Student Expectation	Administrative Expectation
1999	<p>The Ontario College-University Degree Completion Accord http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_9.pdf</p> <p>CAATs, Universities, and Degrees: Towards Some Options for Enhancing the Connection between CAATs and Degrees http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_8.pdf</p>	<p>The Ontario College-University Degree Completion Accord http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_9.pdf</p> <p>CAATs, Universities, and Degrees: Towards Some Options for Enhancing the Connection between CAATs and Degrees http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_8.pdf</p> <p>A New Charter for Ontario Colleges of Applied Arts and Technology of Ontario http://cclp.mior.ca/Reference%20Shelf/PDF_OISE/Charte%20for%20Colleges.pdf</p>		
2000		<p>Ontario's Colleges for the 21st Century: Capacity and Charter Framework http://cclp.mior.ca/Reference%20Shelf/PDF_OISE/charte-r-final2_acaato.pdf</p> <p>An Analysis of College University Degree Completion Arrangements in 24 Program Areas http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_7.pdf</p>		
2001	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_33.pdf</p>	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_33.pdf</p>		
2002	<p>College University Consortium Council Forum: Proceedings http://www.ontransfer.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_22.pdf</p>	<p>Ontario Colleges of Applied Arts and Technology Act, 2002 http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_02o08f_e.htm</p>		<p>Georgian College University Partnership Centre CUCC Forum Proceedings http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_23.pdf</p>

	<p>Ministerial Statement on Credit Transfer in Canada http://www.cmec.ca/Publications/Lists/Publications/Attachments/193/winnipeg2002.en.pdf</p> <p>From Diploma to Degree: A Study of the Movement of Ontario Students from College to University through Formally Articulated Agreements http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_14.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_32.pdf</p>	<p>College University Consortium Council Forum: Proceedings http://www.ontransfer.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_22.pdf</p> <p>Ministerial Statement on Credit Transfer in Canada http://www.cmec.ca/Publications/Lists/Publications/Attachments/193/winnipeg2002.en.pdf</p> <p>From Diploma to Degree: A Study of the Movement of Ontario Students from College to University through Formally Articulated Agreements http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_14.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_32.pdf</p>		
2003	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_31.pdf</p> <p>College University Consortium Council Forum: Proceedings http://www.ontransfer.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_19.pdf</p>	<p>Provincial Postsecondary Systems and Arrangements for Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/29/CreditTransfer.en.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_31.pdf</p> <p>College University Consortium Council Forum: Proceedings http://www.ontransfer.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_19.pdf</p>	<p>College University Consortium Council Forum: Guelph-Humber Partnership Report http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_21.pdf</p>	<p>College University Consortium Council Forum: Guelph-Humber Partnership Report http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_21.pdf</p>
2004	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_30.pdf</p>	<p>A Vision for Excellence http://www.cou.on.ca/issues-resources/student-resources/publications/reports/pdfs/vision-for-excellence-october-2004</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_30.pdf</p>		
2005	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_29.pdf</p>	<p>Ontario: A Leader in Learning http://www.tcu.gov.on.ca/eng/document/reports/postsec.pdf</p>		

	Student Mobility within Ontario's Postsecondary Sector http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_13.pdf	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/91/CreditTransferGroupReport2005-en.pdf		
	Student Mobility http://www.collegesontario.org/research/student-mobility/CO_2005_MOBILITY.pdf	Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_29.pdf		
		Student Mobility within Ontario's Postsecondary Sector http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_13.pdf		
		Student Mobility http://www.collegesontario.org/research/student-mobility/CO_2005_MOBILITY.pdf		
2006	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/91/CreditTransferGroupReport2005-en.pdf	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/91/CreditTransferGroupReport2005-en.pdf		
	Further Education of the 2004-05 Ontario College Graduates http://www.collegesontario.org/research/student-mobility/CO_2004_FURTHERED_MOBILITY.pdf	Further Education of the 2004-05 Ontario College Graduates http://www.collegesontario.org/research/student-mobility/CO_2004_FURTHERED_MOBILITY.pdf		
	Student Mobility http://www.collegesontario.org/research/student-mobility/CO_2006_MOBILITY.pdf	Student Mobility http://www.collegesontario.org/research/student-mobility/CO_2006_MOBILITY.pdf		
	Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_28.pdf	Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_28.pdf		
2007	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/99/CreditTransfer2007.en.pdf	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/99/CreditTransfer2007.en.pdf	Measuring the Success of College Transfer Students at Nipissing University http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_17.pdf	Measuring the Success of College Transfer Students at Nipissing University http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_17.pdf
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	College-University Transferability Study http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_12.pdf	College-University Transferability Study http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_12.pdf		
2008	Student Mobility http://www.collegesontario.org/research/student-mobility/CO_MOBILITY_2008.pdf	Student Mobility http://www.collegesontario.org/research/student-mobility/CO_MOBILITY_2008.pdf	An Analysis of Undergraduate Students Admitted to York University from an Ontario College of Applied Arts and Technology (CAAT) http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_16.pdf	An Analysis of Undergraduate Students Admitted to York University from an Ontario College of Applied Arts and Technology (CAAT) http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_16.pdf
	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/120/CreditTransfer2008.en.pdf	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/120/CreditTransfer2008.en.pdf		
	Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_26.pdf	Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_26.pdf		
	Change Fund Invitational Conference http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_18.pdf	Change Fund Invitational Conference http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_18.pdf		
2009	Moving Beyond Reaching Higher http://cfsontario.ca/downloads/CFS-Moving%20Beyond%20Reaching%20Higher%202009_06.pdf	The Ontario Transfer Credit System: A Situation Report http://www.cou.on.ca/issues-resources/student-resources/publications/papers-by-academic-colleagues/pdfs/the-ontario-transfer-credit-system-a-situation-rep		
	Student Mobility between Ontario's Colleges and Universities http://www.collegesontario.org/research/student-mobility/Student_Mobility_09.pdf	Student Mobility between Ontario's Colleges and Universities http://www.collegesontario.org/research/student-mobility/Student_Mobility_09.pdf		
	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/217/credit-transfer-group-report-2009.pdf	Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/217/credit-transfer-group-report-2009.pdf		
	Ministerial Statement on Credit Transfer in Canada http://www.cmec.ca/Publications/Lists/Publications/Attachments/216/ministerial-statement-credit-transfer-2009.pdf	Ministerial Statement on Credit Transfer in Canada http://www.cmec.ca/Publications/Lists/Publications/Attachments/216/ministerial-statement-credit-transfer-2009.pdf		

	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_25.pdf</p>	<p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_25.pdf</p>	
2010	<p>Our Bright Future: Credit Transfer http://cfsontario.ca/downloads/CFS-PSE%20Secretariat-Credit%20Transfer.pdf</p> <p>The Ontario Online Institute: Students' Vision for Opening Ontario's Classrooms http://www.ousa.ca/wordpress/wp-content/uploads/2010/08/001-Submission.pdf</p> <p>Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/246/wgct-report2010.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_24.pdf</p> <p>Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/246/wgct-report2010.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_24.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_11.pdf</p> <p>Multi-Year Accountability Agreements (MYAA) 2009-10 Report Back Colleges and Universities</p> <p>Forging Pathways: Students Who Transfer Between Ontario Colleges and Universities. Postsecondary education Quality Council of Ontario http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_11.pdf</p>	<p>Making College-University Cooperation Work: Ontario in a National and International Context (HEQCO) http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_1.pdf</p> <p>Report of the CMEC Working Group on Credit Transfer http://www.cmec.ca/Publications/Lists/Publications/Attachments/246/wgct-report2010.pdf</p> <p>Report of the College-University Consortium Council http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_24.pdf</p> <p>Forging Pathways: Students Who Transfer Between Ontario Colleges and Universities. Postsecondary education Quality Council of Ontario http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_11.pdf</p>	
Post Jan. 2011	<p>Our Vote, Our Future: The Student Platform http://www.ousa.ca/wordpress/wp-content/uploads/2011/11/Student-Platform-compressed-FINAL-v25.16.pdf</p> <p>Breaking Barriers: A Strategy for Equal Access to Postsecondary education http://www.ousa.ca/wordpress/wp-content/uploads/2011/03/Breaking-Barriers.pdf</p>	<p>Implementation of the Ontario Online Institute: Recommendations of the Online Learning Working Group http://www.cou.on.ca/issues-resources/student-resources/government-submissions/pdfs/online-institute-discussion-paper-may-20</p> <p>College-University Transferability Study http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_10.pdf</p>	<p>Building Successful College-University Partnerships http://www.mcmaster.ca/vpacademic/documents/BuildingSuccessfulCollege-UniversityPartnerships.pdf</p>

College-University Transferability Study

http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_1_0.pdf

The Transfer Experience of Ontario College Graduates who Further Their Education (Postsecondary education Quality Council of Ontario)

http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_1_5.pdf

ONCAT FAQ and Glossary on Credit Transfer in Ontario

http://www.ontransfer.ca/www/index_en.php?page=faqs

http://www.ontransfer.ca/www/index_en.php?page=glossary

Report of the CMEC Working Group on Credit Transfer
<http://www.cmec.ca/Publications/Lists/Publications/Attachments/263/wgct-report2011-en.pdf>

Student Experiences in Credit Transfer at Ontario Colleges

<http://www.collegesontario.org/research/externalreports/Credit%20Transfer%20Summary%20Report.pdf>

The Transfer Experience of Ontario College Graduates who Further Their Education (Postsecondary education Quality Council of Ontario)

http://www.ocutg.on.ca/www/files_docs/content/pdf/en/oncat_research_reports/oncat_research_reports_15.pdf

Multi-Year Accountability Agreements (MYAA) 2010-11 Report Back Colleges and Universities

Proceedings of the Student Pathways in Postsecondary education Conference

http://www.ontransfer.ca/www/files_docs/content/pdf/en/student_pathways_conference/conference_proceedings_post.pdf

Report of the CMEC Working Group on Credit Transfer

<http://www.cmec.ca/Publications/Lists/Publications/Attachments/263/wgct-report2011-en.pdf>

Policy Statement for Ontario's Credit Transfer System

<http://www.tcu.gov.on.ca/eng/eopg/publications/CreditTransferE.pdf>

Public Services for Ontarians: A Path to Sustainability and Excellence

<http://www.fin.gov.on.ca/en/reformcommission/chapters/report.pdf>

Multi-Year Accountability Agreements (MYAA) 2011-12 Report Back Colleges and Universities

Innovation and Differentiation: Ontario College and University Strategic Mandate Agreements

<http://www.heqco.ca/en-CA/About%20Us/policyadvice/Pages/smas.aspx>

Student Experiences in Credit Transfer at Ontario Colleges

<http://www.collegesontario.org/research/externalreports/Credit%20Transfer%20Summary%20Report.pdf>



University of Toronto/OISE-UT

Leadership, Higher and Adult Education

252 Bloor Street West, Toronto

Fax: 416-926-4741

Appendix B

Recruitment Letter

**Leadership, Higher and
Adult Education**
University of Toronto/OISE
252 Bloor Street West,
Toronto, Canada
M5S 1V6
www.oise.utoronto.ca

RECRUITMENT LETTER

TITLE: TRANSFER LITERACY: ASSESSING INFORMATIONAL SYMMETRIES AND ASYMMETRIES

PRINCIPAL INVESTIGATOR: CHRISTINE HELEN ARNOLD c.arnold@utoronto.ca

SENIOR SUPERVISOR: DR. DANIEL LANG dan.lang@utoronto.ca

INVITATION

Dear [Senior academic or student affairs/services officer],

My name is Christine Helen Arnold and I am a Ph.D. Candidate at the Ontario Institute for Studies in Education (OISE) at the University of Toronto under the supervision of Dr. Daniel Lang. I am writing to request your institution's participation in the following research study, entitled *Transfer Literacy: Assessing Informational Symmetries and Asymmetries*.

Before you decide, it is important for you to understand why this research is being done and what it will involve. Please take a moment to read the details of this study and its benefits. Feel free to ask questions if there is anything that is not clear or if you would like more information.

WHAT IS THE PURPOSE OF THE STUDY?

College-to-university transfer students have become an important population for study. Understanding the demographics and performance of this subset of students has led to change in (inter)national education systems and design. This population accounts for a large amount of postsecondary admissions each year; these students are often viewed

as additional revenue for institutions; and governments across jurisdictions have focused on instituting policy initiatives, reward systems and mechanisms to track transfer students' success over the last decade. Although college-to-university credit transfer has taken place in Ontario since the 1960s and represents the principal form of transfer in the province, little research has focused specifically on *transfer literacy*. Transfer literacy, as it is coined in this study, *is the ability to comprehend credit transfer procedures, policies and outcomes. It refers to a set of knowledge and skills that allow individuals to advise and/or make informed decisions about admission and the mobilization of academic credits between colleges and universities to avoid the repetition of coursework, lack of financial assistance and misaligned institutional and program fit.*

The purpose of this research study is twofold:

- 1) In consideration of current student transfer demands, existing regulatory and advising practices by Government, agencies and institutions and the present state of transfer literacy among all stakeholders, to what extent is the college-to-university transfer information system performing efficiently?
- 2) What (a)symmetries exist in stakeholders' understanding of this process which affects students' facility to transfer and universities' ability to accommodate transfer students?

As part of this study, I am interested in conducting a focus group at your institution with institutional administrators involved in advising credit transfer students and/or evaluating credit.

WHY IS YOUR INSTITUTION BEING INVITED?

[Insert institution's name] is a leader in the advisement of credit transfer students in Ontario. According to data from the Ontario Universities' Application Centre (OUAC), [Insert institution's name] has one of the highest transfer application rates in the province from 2008-2010. This transfer application rate was used to identify [Insert institution's name] for inclusion in this study. Those at the institution seem deeply committed to assisting students with their credit transfer undertakings by providing guidance, materials, application instruction and evaluations.

WHO IS ORGANIZING AND FUNDING THE RESEARCH?

This study is being funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and the College-University Consortium Council (CUCC)/Ontario Council on Articulation and Transfer (ONCAT). [Insert institution's name], if willing to

participate, will be one of 17 Ontario postsecondary institutions selected and approached for participation in this study. Your institution and the CUCC/ONCAT will receive a copy of the final cross-institutional integrative report generated from this research. The CUCC/ONCAT will seek to make transfer advising recommendations to the Government of Ontario (“Government”) from this report.

WHAT WILL BE INVOLVED IF YOUR INSTITUTION TAKES PART?

You will be asked to identify, using the institutional organizational structure, those individuals advising credit transfer students and/or evaluating credit. Potential participants will be sent a ‘letter of invitation to participate’ in the focus group. An on-campus contact person will send this letter to individuals working under the credit transfer portfolio. This will ensure that no information about potential participants is released before they have given their consent to participate.

The 75 minute semi-structured focus group will center on collecting essential information students should be able to comprehend and apply about the transfer process. Further, institutional administrators’ knowledge and judgment of important elements of the transfer process as outlined by Government and agencies (ex. Colleges Ontario, Council of Ontario Universities, the College University Consortium Council, Ontario Council on Articulation and Transfer, Higher Education Quality Council of Ontario and the Council of Ministers of Education, Canada) will occur. (A)symmetries between Government’s/agencies’ and institutional administrators’ perspectives will be identified. The focus group will be audiotaped with participants’ permission.

WHAT ARE THE POSSIBLE DISADVANTAGES IN TAKING PART?

There are no foreseeable risks associated with participating in this study. Institutional administrators involved in advising credit transfer students and/or evaluating credit, do not have any pre-existing vulnerabilities. The research risk in this study is extremely low. Participants will be instructed to only share and disclose that which they are comfortable. The data collected is not sensitive and the participants are highly educated professionals that can make rational/ informed decisions about participating. There is no more risk involved than in everyday interactions.

WHAT ARE THE BENEFITS OF TAKING PART FOR MY STAFF AND INSTITUTION?

Participation in the research study benefits participants and the scholarly community. Participants may experience the following benefits:

- 1) Reflect on their individual work advising students and evaluating credit;
- 2) Consider their colleagues' practices for disseminating information, advising students and evaluating credit as well as draw comparisons relative to other institutions in the study;
- 3) Revisit transfer materials and institutional policies and procedures, which may lead to strategic planning initiatives.

Potential benefits to the scholarly community include: establishing a baseline of credit transfer information that institutional administrators view as being necessary for students to navigate the transfer system; assessing current regulatory and advising practices; identifying (a)symmetries within the college-to-university transfer information system from which literacy programs might be constructed; and generating data for discussion in the field.

WILL THE DATA COLLECTED BE KEPT CONFIDENTIAL AND SECURE?

Involvement in the study is voluntary. The institutional agreement to participate will not override potential participants' decision to be a part of this research. Participants may withdraw at any time or not answer any question they are uncomfortable with. At no time will participants be judged, evaluated or at risk of harm. Participants will be informed that no value judgments will be placed on their responses. All data collected from individuals who choose to withdraw will be removed from the transcripts.

Individual and institutional confidentiality will be maintained in all research writing and publications. In order to maintain the confidentiality of each participant, he/she will be given a case number and all documents will be numbered accordingly in the participant's file along with any notes taken and the audiotape from the focus group. Should participants identify specific institutions or persons in the focus group, these will be given a factitious title or name in the final transcription of the data and not mentioned in the doctoral dissertation resulting from this study.

Data will be used for other manuscripts and public presentations; all institutions and persons will remain confidential in these reports as well. Participants will be informed of this fact in the 'letter of invitation to participate' and orally prior to the commencement of each focus group.

The information gathered from the focus group will be kept in strict confidence and stored at a secure location, a locked filing cabinet. All digital data will be stored on a

secure server. All raw data (i.e. transcripts, field notes) will be destroyed five years after the completion of the study.

CONTACT AND FURTHER INFORMATION

If you are interested in participating in this research please reply to Christine Helen Arnold at c.arnold@utoronto.ca by [insert date]. The following signed agreement will be collected electronically. This invite will be followed-up with a phone call early next week at which point I will be happy to answer any questions you may have about the study.

If you have any questions related to your rights as a participant in this study please contact the University of Toronto's Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273.

By signing below, you are indicating that [Insert institution's name] is willing to participate in the study, you have received a copy of this letter and you are fully aware of the conditions above.

Signature

Date

Thank you in advance for your participation. Please keep a copy of this letter for your records.

Christine Helen Arnold
Ph.D. Candidate, Higher Education
Leadership, Higher and Adult Education,
OISE/UT
252 Bloor Street West,
Toronto, Canada, M5S 1V6
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(416) 978-1246



University of Toronto/OISE-UT

Leadership, Higher and Adult Education

252 Bloor Street West, Toronto

Fax: 416-926-4741

Appendix C

Letter of Invitation to Participate

**Leadership, Higher and
Adult Education**

**University of Toronto/OISE
252 Bloor Street West,
Toronto, Canada
M5S 1V6**

www.oise.utoronto.ca

LETTER OF INVITATION TO PARTICIPATE

TITLE: TRANSFER LITERACY: ASSESSING INFORMATIONAL SYMMETRIES AND ASYMMETRIES

PRINCIPAL INVESTIGATOR: CHRISTINE HELEN ARNOLD c.arnold@utoronto.ca

SENIOR SUPERVISOR: DR. DANIEL LANG dan.lang@utoronto.ca

INVITATION

My name is Christine Helen Arnold and I am a Ph.D. Candidate at the Ontario Institute for Studies in Education (OISE) at the University of Toronto under the supervision of Dr. Daniel Lang. I am writing to request your participation in the following research study, entitled *Transfer Literacy: Assessing Informational Symmetries and Asymmetries*.

As a leader in advising credit transfer students and/or evaluating credit at [Insert institution's name], you are being asked to participate in the following research study in which your institution will be involved. [Insert senior academic or student affairs/services officer's name] has identified you as a potential participant given your work in this field. In your current position, you are deeply committed to assisting students with their credit transfer undertakings by providing guidance, materials, application instruction and/or evaluations.

Before you decide, it is important for you to understand why this research is being done and what it will involve. Please take a moment to read the details of this study and its benefits. Feel free to ask questions if there is anything that is not clear or if you would like more information.

WHAT IS THE PURPOSE OF THE STUDY?

College-to-university transfer students have become an important population for study. Understanding the demographics and performance of this subset of students has led to change in (inter)national education systems and design. This population accounts for a large amount of postsecondary admissions each year; these students are often viewed as additional revenue for institutions; and governments across jurisdictions have focused on instituting policy initiatives, reward systems and mechanisms to track transfer students' success over the last decade. Although college-to-university credit transfer has taken place in Ontario since the 1960s and represents the principal form of transfer in the province, little research has focused specifically on *transfer literacy*. Transfer literacy, as it is coined in this study, *is the ability to comprehend credit transfer procedures, policies and outcomes. It refers to a set of knowledge and skills that allow individuals to advise and/or make informed decisions about admission and the mobilization of academic credits between colleges and universities to avoid the repetition of coursework, lack of financial assistance and misaligned institutional and program fit.*

The purpose of this research study is twofold:

- 1) In consideration of current student transfer demands, existing regulatory and advising practices by Government, agencies and institutions and the present state of transfer literacy among all stakeholders, to what extent is the college-to-university transfer information system performing efficiently?
- 2) What (a)symmetries exist in stakeholders' understanding of this process which affects students' facility to transfer and universities' ability to accommodate transfer students?

As part of this study, I will be conducting a focus group at your institution with institutional administrators involved in advising credit transfer students and/or evaluating credit.

WHY HAS YOUR INSTITUTION AGREED TO BE INVOLVED?

[Insert institution's name] is a leader in the advisement of credit transfer students in Ontario. According to data from the Ontario Universities' Application Centre (OUAC), [Insert institution's name] has one of the highest transfer application rates in the province from 2008-2010. This transfer application rate was used to identify [Insert institution's name] for inclusion in this study.

WHO IS ORGANIZING AND FUNDING THE RESEARCH?

This study is being funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and the College-University Consortium Council (CUCC)/Ontario Council on Articulation and Transfer (ONCAT). [Insert institution's name] is one of 13 Ontario postsecondary institutions (six colleges and seven universities) participating in this study. Your institution and the CUCC/ONCAT will receive a copy of the final cross-institutional integrative report generated from this research. The CUCC/ONCAT will seek to make transfer advising recommendations to the Government of Ontario ("Government") from this report.

WHAT WILL YOU NEED TO DO IF YOU TAKE PART?

The 75 minute semi-structured focus group will center on collecting essential information students should be able to comprehend and apply about the transfer process. Further, your knowledge and judgment of important elements of the transfer process as outlined by Government and agencies (ex. Colleges Ontario, Council of Ontario Universities, the College University Consortium Council, Ontario Council on Articulation and Transfer, Higher Education Quality Council of Ontario and the Council of Ministers of Education, Canada) will occur.

You will be asked to provide consent to be a part of this research study on two occasions: 1) response to the RSVP link provided below and 2) written confirmation of your willingness to participate at the commencement of the focus group. The focus group will be audiotaped with your permission. Due to the confidential nature of this study you will be asked to keep all discussion that takes place within the focus group private.

Last, you will be e-mailed a summary of the themed analysis resulting from the focus group you participated in and provided the opportunity to confirm that it accurately represents our discussion.

WHAT ARE THE POSSIBLE DISADVANTAGES IN TAKING PART?

There are no foreseeable risks associated with participating in this study. The research risk in this study is extremely low. You will be instructed to share and disclose only that information with which you are comfortable. The data collected is not sensitive and as a highly educated professional you can make a rational/informed decision about participating. There is no more risk involved than in everyday interactions.

WHAT ARE THE BENEFITS OF TAKING PART?

Participation in the research study benefits participants and the scholarly community. As a participant, you may experience the following benefits:

- 1) Reflect on your individual work advising students and evaluating credit;
- 2) Consider your colleagues' practices for disseminating information, advising students and evaluating credit as well as draw comparisons relative to other institutions in the study;
- 3) Revisit transfer materials and institutional policies and procedures, which may lead to strategic planning initiatives.

Potential benefits to the scholarly community include: establishing a baseline of credit transfer information that institutional administrators view as being necessary for students to navigate the transfer system; assessing current regulatory and advising practices; identifying (a)symmetries within the college-to-university transfer information system from which literacy programs might be constructed; and generating data for discussion in the field.

WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL?

Involvement in the study is voluntary. While you have been identified as a potential participant, the decision to take part in this research project is yours alone. You may withdraw at any time or not answer any question you are uncomfortable with. At no time will you be judged, evaluated or at risk of harm. All data collected from individuals who choose to withdraw will be removed from the transcripts.

Individual and institutional confidentiality will be maintained in all research writing and publications. In order to maintain your confidentiality, you will be given a case number and all documents will be numbered accordingly in your file along with any notes taken and the audiotape from the focus group. Should you identify specific institutions or persons in the focus group, these will be given a factitious title or name in the final transcription of the data and not mentioned in the doctoral dissertation resulting from this study.

Data will be used for other manuscripts and public presentations; all institutions and persons will remain confidential in these reports as well.

CONTACT AND FURTHER INFORMATION

My visit to your campus will take place [insert date]; the focus group will occur from [insert time and location]. I invite you to attend and discuss your impressions and experiences. Your contribution to this study will help take stock of the information students should be able to comprehend and apply about the transfer process in order to be successful and identify current advising practices. If you are unavailable during this time please contact me and I will be pleased to arrange a one-on-one interview.

If you are interested in participating in the ‘Transfer Literacy–[Insert institution’s name]’ focus group, please RSVP to [insert RSVP link]. Responses are requested by [insert date].

If you have any questions related to your rights as a participant in this study please contact the University of Toronto’s Office of Research Ethics at ethics.review@utoronto.ca or 416-946-3273.

Thank you in advance for your participation. Please keep a copy of this letter for your records.

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Appendix D

Focus Group/ Interview Protocol

Focus Group/ Interview Protocol – 75 minute session

- 1) Settling In (5 mins)
 - a. Welcome interviewee or focus group participants to the session.
 - b. Investigator introduction.
 - c. Describe the purpose of the study.
 - d. Describe the voluntary nature of participation and ask participants if they are comfortable having their discussion audio recorded. Inform participants that those who wish to withdraw from the study may do so at any time; all data collected from these individuals will be removed from the transcripts. Thank and dismiss those who are not interested in continuing their participation. Remind participants that due to the confidential nature of this study they will be asked to keep all discussion that takes place within the focus group private. Remind participants that respect is encouraged-while they are certainly entitled to disagree with another's point they are asked not to be disagreeable. Lastly, inform participants that they will be e-mailed a summary of the themed analysis resulting from the focus group they participated in and provided an opportunity to confirm that it accurately represents the discussion.
 - e. Ask the individual or focus group members to introduce themselves, in which area of the institution they work, and briefly, what they do in their role.

- 2) Warm-Up
 - Clarifying Terms and Concepts* (15 mins)
 - a. A few common terms used when talking about credit transfer include: transfer student, articulation, advanced standing and transfer model.
 - Which of these terms is most relevant to your work (use board to enumerate relevancy)? Do you recognize all the terms? Are there other terms that you use when talking about transfer?

- When I use the phrase 'transfer literacy' what comes to mind?
- Do students understand these terms the same way that you do? If not, what are the differences? Do those differences pose any problems for you? Do you think they pose problems for students?
- What do you understand your institution's transfer model to be? Is it an institution-wide model, or does each faculty have its own? Do you think it makes a difference which form the model takes (ex. advising, curriculum and college-university partnerships)?

Information Matrix (15 mins)

- b. Ask participants to fill in the following matrix: 1) identifying those areas of student clarity and confusion with both internal and external credit transfer information and 2) identifying their own areas of clarity and confusion.

	Internal Information on Transfer Processes	External Information on Transfer Processes
Confusion		
Clarity		

Reporting out.

What similarities do you see between student and administrator perspectives?

What differences did you find?

- 3) Ask Broad Semi-Structured Questions

Transfer Elements and Advising (35 mins)

- a. Are advising practices treated differently by discipline, program, model and degree of articulation (bilateral, multilateral, no pathway), advanced standing? Examples.

- b. Ask participants to examine the following four interrelated elements of the transfer process (printed separately on a piece of paper in bullet points).
- Programmatic and course planning
 - Articulation and transfer models
 - Admissions
 - Credit review and evaluation
(GPA; program affinity; course challenge examinations; generic, unassigned and unspecified credits; assigned and specialized credits; elective credits; materials required; and timing of review process)
- c. What element is the most important for students to be able to comprehend and apply properly during the transfer process? What information is necessary for students to comprehend and apply in order to be literate with this element of transfer? Other elements?
- d. What relationships do these transfer elements have with one another? Does a higher degree of one of the elements (ex. articulation) make another (ex. credit review and evaluation) less important, and vice versa?
- e. One element we have not yet discussed but can be rather important is financial aid and costing information (access to aid, not the aggregate amount). What information is necessary for students to comprehend and apply in order to be literate with this element of transfer?
- f. When students come into your office seeking credit transfer advice, do they have a plan in mind or are they just beginning to consider this option? For students who have a plan, are there different kinds of plans? Is there a certain amount of re-correcting of information that must occur before new information can be provided?
- g. Government and higher education agencies place great value on a seamless transfer system. If we had a seamless transfer system in Ontario, would the information students require to be transfer literate change? (ex. British Columbia's transfer guide provides students with a guarantee their credits will be accepted pre-admission- this seamlessness requires literacy of the use of the guide, online planning tools, student rights etc.) Do you have any experiences with such a system?

- 4) Wrap-Up (5 mins)
 - a. Summarize the main themes of the conversation. Go around the room to see if participants agree with the summary and determine if they have anything to add, amend etc.
 - b. Have I missed anything? Is there anything else that you wish to share that I haven't asked?
 - c. Thank participants for their time. Ask if they have any questions. Provide contact information if participants have anything additional they would like to share.