Transfer Literacy: Assessing Informational Symmetries and Asymmetries

by

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Abstract

This research examines the extent to which the Ontario college-to-university transfer information system is performing efficiently and identifies symmetries and asymmetries in stakeholders’ understanding of this process. 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.

As a lens to analyze and interpret results, the study utilizes 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, and behavioural economics (Martimort, 2008). A qualitative methodology was employed, which included a review of over 70 documents representative of credit transfer deliberations in the province from 1999-2012, as well as focus groups with institutional administrators involved in the advisement of students and/or the assessment of transfer credit. Overall, 13 Ontario postsecondary institutions (six colleges and seven universities) participated in 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 (United Nations-Economic and Social Development Department, 2008).

The results of this research revealed that informational symmetries and asymmetries exist between 1) Government of Ontario/agencies and institutional administrators and 2) institutional administrators and students in the Ontario transfer information system. Overarching asymmetries stem from variations in administrative policies/procedures among institutions. Areas of information confusion between key stakeholders include: credit transfer terminology; varying meanings of ‘credit/credit value’; grade point average (GPA) calculations for admissions and credit transfer eligibility; generic, unallocated, unassigned, non-specific or unspecified credit applications and functions; reach backs; degree and program requirements; and the timing and importance of program major and minor declarations.
Acknowledgements

During my time at OISE I was honoured to have the privilege of working on several policy based research projects that have shaped my doctoral dissertation and outlook. I want to thank my supervisor Daniel Lang for including me in his research agenda as early as my first days at OISE and ensuring that I continued on the path to completion. The guidance, support, thoughtfulness and endorsements you have provided throughout the years have made this journey meaningful. Your ability to visualize concepts, contemplate alternatives and debate economic ideas was extremely helpful, especially as I became more fluent and comfortable speaking and applying the language. The compatibility of our approaches to research and thought processes is truly remarkable! I also wish to thank the members of my committee, Glen Jones, Tony Chambers, Valerie Lopes, and examining committee, Frankie Santos Laanan, Leesa Wheelahan, and Michael Skolnik, for their encouragement and feedback.

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Finally, I am blessed to have family and friends that have believed in my educational choices and life path. My parents and loving brother have spent countless hours listening to my joys,
concerns, and outlook for the future. My visits home to the tranquility of the country kept me grounded and focused on all life has to offer. You have always been there to pick me up and dust me off when I have needed a warm embrace without judgment. To my husband, we have weathered this doctoral journey together and I could not imagine doing it with anyone other than my best friend. Throughout this time we have developed our relationship into a marriage that continues to grow and change as new challenges and choices come our way. I am excited to continue learning with you and eventually start our family, the way we have always desired.
Dedication

I wish to dedicate this achievement to my friend and mentor Michael Kompf—a wonderful father figure whom I will always cherish. You are the reason I pursued graduate education and your humour and compassion make me smile on the days when I need it the most. You provided moments of critical contemplation, incredible dedication to my development, and a guiding hand. I know that this hand will extend throughout my life and I will rely on it for support. There have been many times in the past two years that I have wanted to hear your voice and discuss matters that I needed assistance with. In those times I think back to your encouraging words and belief that I will continue to do good work if I keep a level head and not lose sight of myself. I promise you that I will “pay it forward” as you always advised, making sure that students come first in my future career. I was afforded this courtesy and will ensure that others are provided this same level of care. You are forever in my mind and heart.
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Acronyms

- Alberta Council on Admissions and Transfer (ACAT)
- Association of Colleges of Applied Arts and Technology of Ontario (ACAATO)
- Association of Registrars of the Universities and Colleges of Canada (ARUCC)
- British Columbia Council on Admissions and Transfer (BCCAT)
- Canadian Engineering Accreditation Board (CEAB)
- Canadian Federation of Students-Ontario (CFS)
- Chartered Professional Accountants (CPA)
- Colleges Ontario (CO)
- Colleges of Applied Arts and Technology (CAATs)
- College Statistical and Enrollment Reporting (CSER)
- College-University Consortium Council (CUCC)
- Council of Atlantic Ministers of Education and Training (CAMET)
- Council of Ministers of Education, Canada (CMEC)
- Council of Ontario Universities (COU)
- Grade point average (GPA)
- Higher Education Quality Council of Ontario (HEQCO)
- Key Performance Indicators (KPIs)
- Ministry of Training, Colleges and Universities (MTCU)
- Multi-Year Accountability Agreements (MYAA)
- National Survey on Student Engagement (NSSE)
- Ontario College Application Service (OCAS)
- Ontario College University Transfer Guide (OCUTG)
- Ontario Confederation of University Faculty Associations (OCUFA)
- Ontario Council on Articulation and Transfer (ONCAT)
- Ontario Education Number (OEN)
- Ontario Ministry of Education (OME)
- Ontario Postsecondary Transfer Guide (OPTG)
- Ontario School Counsellors' Association (OSCA)
- Ontario Student Assistance Program (OSAP)
- Ontario Undergraduate Student Alliance (OUSA)
- Ontario Universities’ Application Centre (OUAC)
- Pan-Canadian Consortium on Admissions and Transfer (PCCAT)
- University Statistical and Enrollment Reporting (USER)
**Glossary**

- *Advanced standing* generally 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 where advanced standing refers to any awarded transfer credit.

- *Adverse selection* refers to contractual negotiations involving asymmetric information wherein both stakeholders 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 (Akerlof, 1970).

- *Allocated, assigned, specific or specified* refers to credit given for a fully equivalent course in content and level of study.

- *Articulation agreements* refer to “two or more academic institutions identifying comparable coursework and degree requirements that can be met at one institution and transferred to another institution. During articulation, stakeholders from each institution conduct meetings among faculty and staff considering similarities in coursework, curricula, syllabi, textbooks and competency/outcomes profiles to ensure seamless transfer of credits to the partner institution. As the legal document of a partnership, the articulation agreement contains the final accords as agreed upon between the two institutions” (Shoreline Community College, 2015, p.1).

- *Asymmetry* refers to an incongruity of 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 (Akerlof, 1970).

- *Bilateral transfer* refers to a student who makes the switch from a college to a university or four-year college with transfer as the basis of admission. The student receives credit for courses previously taken to be applied to his/her baccalaureate degree.

- *Bounded rationality* refers to the rationality of individuals as limited by information they lack, the ways information is provided, the cognitive limitations of their minds, and the finite amount of time they have to make decisions. Another way to look at bounded rationality is that, because decision-makers lack the ability and resources to arrive at the optimal solution, they instead apply their rationality only after having greatly simplified
the choices available or decide not to make a decision at all (overload) (Rubinstein, 1998).

- **Equilibrium** refers to an optimal set of actions that stakeholders undertake based on their information sets. An equilibrium may either be ‘first-best’, i.e. arrived at through perfect information for all stakeholders, or otherwise ‘second-best’ if it is arrived at through optimal behaviour strategies given that information is incomplete or asymmetric (Kreps, 2003).

- **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.

- **Generic, unallocated, unassigned, non-specific or unspecified** refers to credits given for courses with no exact equivalent at the university or for a course where no equivalent discipline exists.

- **Libertarian/Soft paternalism** refers to change in individuals/stakeholders choices through indirect methods, rather than by rules, regulations and instruction in a way that will make them better off, as judged by themselves. It is important to note that individuals are free to opt out of specified arrangements if they choose to do so (Thaler & Sunstein, 2003).

- **Market** refers to a set of social institutions in which commodity exchanges take place at agreed-upon prices, and to some extent are facilitated and structured by those institutions (Hodgson, 1988; North, 1990; Richter, 1996; Richter & Furubotn, 1996; Rosenbaum, 1999; 2000).

- **Moral hazard** refers to a situation where information asymmetries persist even after a contract has been entered into. A moral hazard may occur when one stakeholder’s actions change to the detriment of another after a transaction has occurred (Akerlof, 1970).

- **Rationally inattentive** refers to individuals who may choose not to act on available information if the perceived costs of collecting, processing, and responding to such information are larger than the perceived gains from doing so (Sims, 2003).

- **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’, do not withhold information, share common knowledge about the credit transfer environment (even if this knowledge is incomplete or incorrect), and hold common beliefs or expectations about future outcomes (Akerlof, 1970).
• *Transfer literacy* 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.

• *Transfer shock* generally refers to “the observed tendency for college student GPAs to temporarily drop within the first year of university and is used as a benchmark of college transfer smoothness” (Gawley & McGowan, p.5).
Chapter 1
Introduction

Overview of the Research Problem

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 [OUSA], 2014; Pascarella, 1982). In economic terms, postsecondary education can be viewed as a market with asymmetric information (Spence, 1973, 2002). 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 [CO], 2008; Constantineau, 2009; Junor & Usher, 2008; Kerr, McCloy, & Liu, 2010; Ministry of Training, Colleges and Universities [MTCU], 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, access to financial assistance and increased time to graduation) (Canadian Federation of Students [CFS], 2009; CO, 2008; Davies & Casey,
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 and outcomes centers on the existent information system in place and its accessibility. In the Ontario context, this information system includes the Government of Ontario, 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.

**Research Questions and Objectives**

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.

The following research questions guide this investigation:

1) In consideration of current credit transfer demands, existing regulatory and advising
practices by the Government of Ontario, 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 the transfer process which
affect students’ facility to transfer and institutions’ ability to advise and accommodate
transfer students?

The objectives include: establishing a baseline of credit transfer information that the Government
of Ontario, 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 might be measured and
initiatives constructed; and generating data for discussion in the field.

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 (United Nations-Economic and Social Development
Department, 2008).
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 support the development of a new credit transfer system that is intended to facilitate transfers among institutions. An approximate breakdown of these funds includes: $21.7 million to the Ontario Council on Articulation and Transfer (ONCAT), $14 million to research projects and pathway development, $34 million to institutional grants, and $4 million to the ONTransfer website. The new credit transfer system’s aims include: 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 (MTCU, 2011b). The Government of Ontario is currently in the process of determining what these aims will require in order to be successful.

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. This research attempts to delineate what education and initiatives will work to better enhance the credit transfer function.

**An Ontario Blueprint**

Ontario has two publically funded postsecondary education sectors, colleges and universities. Currently, there are 24 public colleges and 20 public universities. The most recent Ontario Colleges of Applied Arts and Technology Act re-chartered the colleges in 2002 and outlined both the objectives of the colleges moving forward and a plan for carrying out these objectives. The colleges’ objectives include: 1) offering a comprehensive program of career-oriented education and training to assist individuals in finding and maintaining employment, 2) meeting the needs of employers and the changing work environment, and 3) supporting the economic and
social development of local and diverse communities surrounding them (2002, c.8, Sched. F, s. 2[2]). These objectives will be achieved by entering into partnerships with business, industry and other educational institutions, offering courses in the French language where authorized to do so by regulation, adult vocational education and training, basic skills and literacy training, apprenticeship in-school training, and applied research (2002, c.8, Sched. F, s. 2[3]). Ontario’s universities each have their own charter which allows for a marked amount of autonomy. These charters vary from those of the colleges: the language focuses on advancing the highest quality of learning, teaching and research and the intellectual, social, moral, cultural, spiritual and physical development of students, employees and society (Brock University Act, Ryerson University Act, University of Ontario Institute of Technology Act, York University Act etc.).

The structure of the Ontario postsecondary education system comprises a dense institutional landscape, fundamentally binary college and university sectors, and an autonomous university sector. There has historically been a lack of commitment towards the establishment of a credit transfer system. For these reasons, transfer literacy in this context is both extremely important and difficult to ensure compared to 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 and within stakeholder groups: Government of Ontario, 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 the Government of Ontario, agencies and administrators, the development of the transfer information system has been limited. Information creation, processing and transmission, selection, organization, reduction and conceptualization are important if there is to be a common understanding and transfer literacy among stakeholders.

A review of the literature provides insight into initial credit transfer and college-university relations in the province. In Ontario, the college curriculum has been primarily vocational (with the offering of certificates, diplomas and applied bachelor degrees) as compared to the Arts and Science curriculum of British Columbia and the United States’ associate degrees and the United Kingdom’s foundation degrees. These degrees typically provide students with credit towards the first two years of their university studies. In Ontario, however, the programming offered parallels that of the United States’ community colleges’ applied associate degrees.

Townsend, Bragg and Ruud (2008) define the difference between the two types of curriculum and arrangements for transfer in the following manner: 1) ‘traditional transfer’ makes reference to students who complete a program outside of the university sector that is articulated and designed with transfer to a university degree in mind, and 2) ‘occupational transfer’ makes reference to students completing a specialized occupational program and then seeking transfer to a university degree. Ontario falls within the occupational transfer category, where Bragg and Ruud (2011) state that many students intend to use their studies to advance in their chosen occupations and often lack alternatives due to limited transfer options. These students’ former studies are often criticized as being “too narrow, threatening the notion of a broad-based liberal education that is the mainstay of higher education” (2011, p. 48). They may not contain the
theoretical background, writing intensity and research components required for university study. As Jones (2013) states, “in contrast to transfer programs, specialized vocational programs were designed to lead directly into the labour market and many were originally envisioned as terminal credentials. There may be mechanisms for laddered further education within the vocational specialization, but there can be huge challenges associated with transfer into university programs” (p. 11).

Townsend, Bragg and Ruud (2008) define three types of occupational transfer drawing on the work of Ignash and Kotun (2005). These categories are 1) career ladder, 2) inverse or upside down), and 3) management ladder (2005). Career ladder is defined by a large number of upper-level courses in the technical field that is being studied; inverse or upside down is defined by a general studies program where the curriculum does not follow the sequencing of courses that occurs in a traditional undergraduate degree (additional general education courses are required in students’ senior years post-transfer); and management ladder is defined by a program that is designed to provide applied management skills appropriate for future managerial roles (Townsend, Bragg & Ruud, 2008). Students looking to mobilize credits from any of these occupational experiences face difficulties.

Students in the Ontario context struggle with forging their own path when it comes to issues associated with occupational programs not intended for transfer. Stokes (1989) commissioned background paper in response to Vision 2000, discussed herein, noted that the percentage of college graduates transferring to university represented approximately 2.5 percent of all college graduates. Stokes stated at the time that the provinces’ approach and accommodations for students would have to change if accessibility is of importance (1989). Similarly, Smith’s (1998) original research on college-to-university transfers reveals that from 1986-1991 applications
accounted for only 3.9-4.5 percent of all university applications. More recently, while the numbers are still considerably lower than expected, data analyzed by Decock (2004, 2006, 2011) does show an increasing number of students transferring in the province from the 1980s onward.

Consequently, Marshall (1989) determined that there was a demand for transfer arrangements that was not being fulfilled. Arrangements were in place between Ontario colleges and American universities, but were not being established locally with the same liveliness.

Skolnik (1999) identified the same issue a decade later declaring,

> It is an interesting question as to why in a province with a relatively large number of its own universities, so many of the public colleges have negotiated degree completion agreements with universities outside the province. There appear to be three reasons: the out of province universities offer more credit for coursework done in the CAATs; they are said to be more responsive than Ontario universities in negotiating such agreements, as evidenced by the very short times which it has taken to negotiate some of these agreements; and they seem to be more flexible in program delivery, for example with respect to scheduling, location, and curriculum (p 8-9).

Research has revealed that collaboration requires clear decision making processes, communication and shared understanding (Skolnik, 1995; Skolnik & Jones, 1993). These are all essential elements of a seamless postsecondary system that would require fine-tuning in the Ontario context.

While these early works demonstrate an aspiration for credit, a strategy was essential to move forward.
A chronology of historical regulatory practices in the province as developed by the Government of Ontario, agencies and institutions reveal just that. 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).

Table 1 | Ontario Credit Transfer Developments

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>The City College and Amendment to the Department of Education Act</td>
</tr>
<tr>
<td>1990</td>
<td>Vision 2000</td>
</tr>
<tr>
<td>1993</td>
<td>Task Force on Advanced Training (‘Pitman Report’)</td>
</tr>
<tr>
<td>1995</td>
<td>Pan-Canadian Protocol on the Transferability of University Credits</td>
</tr>
<tr>
<td>1996</td>
<td>College and University Consortium Council</td>
</tr>
<tr>
<td>1999</td>
<td>Ontario College-University Degree Completion Accord (‘Port Hope Accord’)</td>
</tr>
<tr>
<td>2002</td>
<td>Postsecondary Education Choice and Excellence Act</td>
</tr>
<tr>
<td>2005</td>
<td>Ontario: A Leader in Learning (‘Rae Review’)</td>
</tr>
<tr>
<td>2011</td>
<td>Policy Statement for Ontario’s Credit Transfer System</td>
</tr>
<tr>
<td></td>
<td>Ontario Council on Articulation and Transfer</td>
</tr>
</tbody>
</table>

Originally, the document that shaped the character of the colleges in Ontario was the second Supplementary Report of the Committee of Presidents of Provincially Assisted Universities and Colleges of Ontario (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, 1986). 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 25 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 19 (1965).

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” (Council of Regents for Colleges of Applied Arts and Technology of Ontario, 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.

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 and improve opportunities for students to move between college and university sectors through 1) consistent program standards across the college system, 2) broadened curriculum, 3) the creation of advanced standing arrangements in related fields of study (ex. college Business graduate and university Commerce program), 4) general transfer credits for students moving between unrelated fields (ex. college Business graduate and university Social Work program) and 5) joint program offerings by colleges and
universities (Council of Regents for Colleges of Applied Arts and Technology of Ontario, 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]” (Council of Ministers of Education, Canada [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 [OCUFA], 2008). This represented an increase of approximately 60 percent over three years (176 college-to-university and 40 university-to-college agreements in total) (OCUFA, 2008; Ontario Universities’ Application Centre [OUAC], 2004).

One distinctive collateral development 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’s 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 40 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 the provincial 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, MTCU awarded three million dollars to the College-University Consortium Council (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 40 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).

The Ministry of Training, College and Universities 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; MTCU, 2010a). Ontario Universities’ Application Centre data were used to report the number of transfer applications and registrations from colleges in Ontario (Kerr, McCloy, & Liu, 2010; MTCU, 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. The Government of Ontario, 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 other jurisdictions and suggest a remaining disconnect between Ontario’s colleges and universities (of which transfer literacy may play a part).
At the moment, this is the most up-to-date data on Ontario university applicants and registrants with previous college attendance in the province. Within the next year available data will improve with a couple of initiatives coming to fruition at the system level:

1) Registrants will be flagged at the institution level according to ‘transfer credit status’ (mobility with credit granted) and mandatorily reported to the Government of Ontario, as led by MTCU’s Postsecondary Education Division.

2) Ontario Education Number (OEN) will provide anonymized data according to ‘movement status’ (mobility) as permitted by the passing of Bill 10 (previously Bill 151) amendments to the Ministry of Training, College and Universities Act on the definition, collection and use of personal information.

**Dissertation Structure**

An overview of the research problem and objectives has been provided, alongside a focused overview of the history of credit transfer and recent bilateral developments in the Ontario context. The remainder of the dissertation is divided into six chapters and structured in the following format: background, methodology, theoretical framework, results, discussion, conclusion and recommendations.
Chapter Two outlines a definition of the *bilateral transfer student* with a brief review of foundational research completed on the transfer student population. This is followed by an examination of North American bilateral transfer students from entry to end point across four success factors: a) access, b) engagement, c) persistence, and d) time to graduation.

The various stages of the research methodology and design are described in Chapter Three. The document analysis, intuitive selection and recruitment, focus groups with institutional administrators (senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff) and data analysis process are outlined. Participants’ functional areas and focus group protocol details are also stated.

In Chapter Four the theoretical framework used to understand the problem and interpret the results is presented. Seminal concepts from contract theory and behavioural economics are defined and a discussion of the rationale for the application of economic concepts to a study of higher education is given. The two factors that contribute to student and administrator transfer literacy, information symmetries and asymmetries and behaviour are addressed. This research takes stock of available information and the processing of this information when available. Bounded rationality, how individuals respond to information and how they benefit from libertarian/soft paternalism are explained with examples.

The results and discussion sections follow the process taken to assess the efficiency of the transfer information system and identify (a)symmetries. This three-part process takes place throughout Chapters Five, Six and Seven. First, a documentation of information needs and responsibilities are outlined via a description of the elements that make up transfer literacy as defined by the literature and institutional administrators. Second, an analysis of the degree of completeness in terms of the effectiveness and sustainability of existing and relevant information occurs. Identified symmetries and
asymmetries are presented for review and consideration. Third, internal and external factors that impact on performance are discussed according to concepts from contract theory and behavioural economics.

Lastly, Chapter Eight concludes with a summary of the research results, institution and system level policy and procedural recommendations, and a discussion of contributions to scholarship and future research.
Chapter 2
Background: Transfer Student Characteristics and Outcomes

Today, it is certainly not true that staying at one college for four (or five or six years) is necessarily more beneficial than “swirling”—earning a degree by attending more than one institution. The more flexibility and confidence students can develop during their undergraduate years, the more prepared they will be for an ever-changing global economy (Frost, 2009).

*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 as such 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 (British Columbia, 1988; Council of Regents for Colleges of Applied Arts and Technology of Ontario, 1990; Dennison, 1995; MTCU, 2011a, 2011b; New Brunswick Commission on Excellence in Education, 1993; Rae, 2005).
High on the reform agenda is the transfer of students in North America moving from two-year colleges to universities and four-year colleges. This bilateral method of transfer applies credits earned at the college for application towards the baccalaureate. However, the process is often filled with ambiguity due to varying policies and processes across jurisdictions. In both Canada and the United States a national system for transfer does not exist, and therefore, transfer models, data, and research are often province/state and/or institution specific.

Canadian literature on bilateral transfer students is limited compared to that in the United States⁠. While there are a few binary systems in the United States; overall, well-defined research is the product of a history of transfer initiatives across states as well as government led legislation. Yet, despite differences in the collection of research, transfer models in the United States and Canada are generally quite similar. In California, the release of the Master Plan (Liaison Committee of the State Board of Education and Regents of the University of California, 1960), signalled system coordination in higher education; four-year colleges began accepting large populations of transfer students under legislation. State wide governance bodies limited the competition between university and college sectors, thus, encouraging students to combine the hands-on-learning of the college with the academics of the university (Jones & Skolnik, 2009; Boggs & Trick, 2009; Dennison; 1995). This American system has acted as a role model for much of

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¹ It is important to note when reviewing the literature on bilateral transfers in Canada the following unique provincial operating distinctions. First, in British Columbia, Associate of Arts and Associate of Science Degrees are “provincial credentials offered by many institutions. The associate degree curriculum comprises two years of university level study in a variety of academic areas and as such, the requirements are sufficiently flexible to enable students to complete the required prerequisites for upper level course work in their intended major” (BCCAT, 2015, p.2.) Second, in Quebec students who pursue postsecondary education must attend a college (CEGEP/Colège d'enseignement général et professionnel). Quebec students complete high school in Grade 11 and enter postsecondary education one year earlier than all other North American students. Within the colleges, “pre-university programs take two years to complete, whereas the technical programs take three. These programs share a core curriculum, consisting of French, English, Humanities, Physical Education and complementary courses” (Fédération des cégeps, 2015, p.1). A Diploma of College Studies (DCS), or DEC (Diplôme d'études collégiales) is awarded to successful students. The Fédération des cégeps (2015) states that 50 percent of students are enrolled in the university stream.
Canada. The province of British Columbia is the most direct example; John B. MacDonald (1962) reformed the province’s higher education system based on the California model creating a set of well-articulated college and university programs. Additionally, the provinces of Alberta, New Brunswick, Saskatchewan and Ontario have constructed transfer models based on similar ideology. While the Government of Ontario defined a distinct and separate educational role for the CAATS in 1966, currently this binary system has begun to blur and students are transferring more regularly (Skolnik, 2005).

The North American Bilateral Transfer Student Experience: The Move from College to University Degree

To speak of bilateral transfer students as a population in postsecondary education requires a definition of the term. Across national boundaries the term takes on multiple variations and as such collected data can often be misleading. Bilateral transfer for the sake of this dissertation refers to a student who makes the switch from a college to a university or four-year college with transfer as the basis of admission. The student receives credit for courses previously taken to be applied to his/her baccalaureate degree. In order to be eligible to receive transfer credits,

Students must achieve a pre-specified level of performance in college courses for which they are seeking a credit. Students can receive transfer credits either defined through an articulation agreement between the college and the university or they can receive credits from outside of an articulation agreement (McGowan & Gawley, 2006, p.15).

Foundational Research

When examined in the literature, bilateral transfers are known as those students who benefit from the intermediary role of the two-year college in between high school and a four-year degree. Research examining bilateral transfer students often identifies two-year colleges as crucial to degree completion (Surette, 1997). In initial research conducted out of the United States, scholars Pascarella and Terenzini (1991) found entry at the two-year college to be associated with graduation rates. Bachelor’s degree seekers who began their degree at a two-year college were eight percent more likely than direct entry applicants to graduate from a four-year program (Pascarella & Terenzini, 1991). Further, two-year community college students who make the transfer are as likely as initial four-year bachelor students to persist in their studies (76 percent to 78 percent respectively) (Pascarella & Terenzini, 1991).

This finding is confirmed by Adelman (1998). Using data from the National High School and Beyond Study he determined that community college students (six years after graduation from high school) who transferred to a four-year bachelor’s degree held no disadvantages on measures of educational attainment. Additionally, Adelman (1999) found that student’s pre-college academic resources, socio-economic status, race-ethnicity, and gender upon transferring from a two-year to a four-year institution were positively related to degree completion.

However, transfer students do experience a number of disadvantages including increased time to graduation, excess credits, and the demanding task of navigating provincial/state policies, economics, and structures affecting two- and four-year institutions (Cuccaro-Alamin, 1997; Dey & Astin, 1989; Pascarella & Terenzini, 1991; Rouse, 1995). Nationally representative samples produced by Christie and Hutcheson (2003) demonstrate these outcomes. Christie and Hutcheson (2003) studied a set of 1, 577 graduating high school sophomores who enrolled in a non-
proprietary two-year college full-time in the same year (excluding students who indicated that
the lowest educational attainment they would be satisfied with was less than a bachelor's degree).
Upon transferring, these students had a statistical net decrease of nine percent in earning their
bachelor’s degree over a ten year period (2003). Similarly, Rouse (1995) and Cuccaro-Alamin,
(1997) found that students who begin their studies at a two-year college overwhelmingly take
longer to degree completion.

While this initial research shares mixed results, the demographics of transfer students moving
bilaterally are quite generalized. Early research illustrates the following picture of the bilateral
transfer student: white, young males, academically oriented, with high family socio-economic
status, who attend school during the day (Cohen & Barwaer, 1996; Dey & Astin, 1989; Lee and
Frank, 1990; Nora & Rendon, 1990; Townsend, McNerny, & Arnold, 1993). These
demographics along with the availability of data and resulting research have expanded overtime.

Environmental Scan

While foundational research conducted on bilateral transfer students has directly informed
current literature, researchers have also expanded their depth of study. Research on transfer
student populations has become more targeted, identifying specific institutions/regions and
utilizing data made available from provincial and national collection agencies. Herein, four
success factors affecting the bilateral transfer student experience are discussed (access,
engagement, persistence, and time to graduation). The first, access, is the most crucial and
difficult stage for the bilateral student. Without entry, the other stages cease to exist, and for
many who seek to transfer this quickly becomes reality (Kirk-Kuwaye & Kirk-Kuwaye, 2007).

Access. Anisef, Bertrand, Hortian and James (1985) argue there are two forms of access:
Type I, how many? and Type II, who receives?. Others suggest that factors affecting access must
include affordability and credit accumulation pre-transfer. Type I access abounds in the literature on bilateral transfer students and is most commonly calculated by region, institution, and enrollment in specialized degree-partnership programs. Transfer students make up a substantial share of senior undergraduates at four-year institutions. Nationally, 40 percent of all seniors across North America responding to the National Survey on Student Engagement (NSSE) began college at an institution other than the one where they completed their studies (NSSE, 2005). At masters granting and doctoral institutions, “almost half of seniors are transfers” (NSSE, 2005).

**Type I: How Many?** In the United States, Dr. Arthur M. Cohen, former director of the ERIC Clearinghouse for Community Colleges (1966-2003), has kept a careful watch on transfers for several decades. He states that the rates of transfer for students moving from two-year to four-year colleges hovers around 22 or 23 percent, depending on the year (Cohen, 1998). Since 1998, however, bilateral transfer agreements have increased in the United States and so too has the population utilizing them (United States Department of Education, 2005). Recently, the 2005 Beginning Postsecondary Students Longitudinal Study conducted by the United States Department of Education determined that traditional transfer (transfer from a two-year to a four-year institution) now totals 35 percent of all enrollments.

Those states with the highest percentage distribution of enrollment include: California (22.4), Texas (8.5), Florida (5.5), and New York (5.4) (United States Department of Education, 2005). Not surprisingly, each of these states has a transfer system/formal articulations set up between the community college and college sector. Additionally, the United States Department of Education (2001) concluded that upon initial enrollment most community college students attend institutions in states with legislation on transfer and articulation (78 percent). Further, students attend institutions in states with: cooperative agreements (89 percent), requirements for reporting
transfer data (90 percent), common core courses (66 percent), and statewide articulation guides (57 percent) (United States Department of Education, 2001). The findings reveal that students not only plan to transfer upon inception in the system, but use data and policies on transfer effectively in decision making.

In Canada, recent pan-Canadian statistics on transfer enrollment are not available. However, one can estimate the rate at which traditional transfer is occurring in the nation; Statistics Canada reported college student enrollment in 2005 at 613,503. Of these students 120,207 were enrolled in college-university transfer programs and 717 in collaborative degree programs totalling 120,924. This calculates to 20 percent of all enrolled students in a bilateral transfer program. However, one must also consider those students not enrolled in a formally articulated transfer program, those students who transfer on a case-by-case basis (thus increasing the rate of transfer to approximately 25 percent). This estimate is consistent with findings from Statistics Canada and CMEC (2003) from the period of 1989/90 to 1999/00, which reports that one out of every four college students in Canada is enrolled in a university transfer program2.

**Type II: Who Receives?** In a comprehensive review of the literature Andres and Carpenter (1997) found that bilateral transfer students in the United States and Canada share certain common characteristics upon entry to postsecondary education. Transfer students “often start at a community college because of lower tuition costs, more relaxed admission requirements, or demographic convenience, and then attempt to transfer to a university after completing one or two years toward a degree” (Andres & Carpenter, 1997, p.33). These students are generally older, married, and perceive their academic ability and prospects for program completion to be low (Andres & Carpenter, 1997).

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2 “The ‘général’ programs of the Quebec CEGEPs, completion of which is a prerequisite for entry into Quebec universities, are included in this classification” (Statistics Canada & CMEC, 2003, p. 211).
Foundational research suggests that those who experience challenges with the transfer process are generally women, minority students, students from low socio-economic backgrounds and parental education levels, students with previous vocational training, and low academic performers (Grubb, 1991; Lee & Frank, 1990; Lee, Mackie-Lewis, & Marks, 1993; Lunneborg & Lunneborg 1976; Nora & Rendon, 1990; Townsend, McNerney, & Arnold, 1993). However, these findings are not absolute; in fact recent studies show that a large percentage of transfer students are female, despite what greater struggles they may encounter. The CUCC in 2007 compared graduates of community colleges in Canada who had furthered their education. They examined the choices of students to either re-enroll at a community college or transfer to a university program. On the whole transfers tended to be female, graduating from a basic or advanced diploma program. Similarly, in the United States, Schmidtke and Eimers (2000) determined that of the total transfer student population admitted to a multi-campus system over a five year period females consistently outnumbered males. Access by gender has shifted reflecting the shift in the number of female students in postsecondary education today.

However, gender is only one concern in the United States, where race and ethnicity are more telling of access barriers. Schmidtke and Eimers’s (2000) study further examines bilateral transfer students participation along racial lines. They determine that of their original sample over three-fourths of transfer students are white, while only eight percent are African-American, two percent Hispanic, and three percent Asian-American (2000). Unlike Canada, these supplementary categorizations of bilateral transfer students are commonly researched in the United States. Several populations experience difficulty gaining access to a four-year college from a community college; the most heavily regarded in the literature is Hispanics. Statewide, Hispanic students who start higher education at a community college are about half as likely to transfer to a four-year public college, persist, or earn a bachelor’s degree (Alexander, Garcia,
Gonzalez, Grimes, & O’Brien, 2007; Melguizo, 2007). Reasons for this lack of participation is attributed to lack of familiarity with higher education, inadequate preparation for college, limited or no English competence, social and cultural distance on campus, and undocumented immigration status (Alexander, Garcia, Gonzalez, & O’Brien, 2007; Schmidtke & Eimers, 2000). The largest barrier is financial resources: fewer scholarships exist for students who choose to start their degree at a community college (Mueller, 2008).

**Affordability.** In the United States and Canada the affordability of a four-year degree is an imperative issue for access. Financial aid is a distinct access issue for bilateral transfer students. As earlier characterized by Andres & Carpenter (1997), the bilateral transfer student most often chooses a community college to initiate his/her postsecondary education due to financial stress. Particularly in the United States, transfer students are disproportionately from low-income backgrounds and are more apt to see educational loans as a risky investment (Handel, 2007). This risk only increases if the student is unsure of his/her academic abilities upon entry to the new institution (Handel, 2007). Most telling is a study by Casey and Davies (1999) interviewing transfer students from 15 community colleges transferring to a western university in the United States. In response to a set of questions on financial assistance most bilateral students agreed they had experienced difficulties. Many stated they had a difficult time getting adequate financial aid, or in some cases any financial aid:

My biggest problem was just ... finding financial aid... instinctively I had this idea that if I came here, and as long as I still had good grades and stuff I thought that they would be throwing thousands of dollars at me … I get up here and all of a sudden it is not assumed that you worked, you know ... if you are making $5.00 - $6.00 an hour it doesn't go very
far. The work load was a lot greater and.... And it's not built into the system really, and the financial aid isn't there either (Casey & Davies, 1999, p. 60).

Students repeatedly express the need to support themselves financially. They identify the problem of balancing a new study routine, more rigorous than that of the two-year college, with a part-time job (Casey & Davies, 1999; Handel, 2007; United States Department of Education, 2005).

Research in Canada on the impact of financial aid for transfer students has not been as well informed. Mueller and Rockerbie (2005) find distinct demographic differences in demand: “males tend to be more price sensitive than females, and students applying from Ontario high schools exhibit less sensitivity to tuition and median incomes in their applications behaviour compared to bilateral transfer students” (p.470). While many direct entry students are not sensitive to tuition or income changes, transfers often have less attachment to the idea of attending university and are sensitive to these variables (Mueller & Rockerbie, 2005). Canadian research proposes that cost considerations may be motivating choice (Mueller, 2008), as Statistics Canada and CMEC (2003) state that approximately 25 percent of college students in Canada are enrolled in university transfer programs with a slight increase since 1999. It is unknown whether this growth is a direct result of higher university tuition, more selective university admission requirements, or other factors (Mueller, 2008).

Accumulated Credits/Credit Hours. A unique feature of access for bilateral transfer students is the number of credits one has attained before transferring. In his foundational work on transfer students Adelman (1999, 2006) defined transfer as having started in a community college and earned more than ten credits prior to enrolling at a four-year college and earning more than ten credits. Students displaying this pattern were more likely than those who
transferred with ten or fewer credits to receive admission and earn their baccalaureate degree (66 percent) (Adelman, 1999, 2006). With regard to admissions policies and procedures, Arnold and Kompf (2008) surveyed 25 universities in Canada and the United States on the requirements for college-university transfer students. Trends taken from this research suggest that junior students, first and second year of study, generally receive admission over senior students (Arnold & Kompf, 2008). The latter may receive refusal for transfer irrespective of high grades (Arnold & Kompf, 2008).

GPA/Performance. While pre-transfer credits and grades are important, post-transfer behaviour trends are more dramatic and reveal the likelihood that a bilateral transfer student will continue, repeat the transfer experience, or stop out altogether. Trends show that students often experience transfer shock, a temporary dip in grades, in the first or second semester after transferring (Andres & Carpenter, 1997; Britton, 1969; Dennison & Jones, 1970; Diaz, 1992; Gold, 1979; Graham & Hughes, 1994; Kim, 2001; Laanan, 1996, 1998, 2001). Transfer shock generally refers to “the observed tendency for college student GPAs to temporarily drop within the first year of university and is used as a benchmark of college transfer smoothness” (Gawley & McGowan, p.5). Research from the United States overwhelmingly reports a decline in grade point average (GPA) during the first semester at a four-year institution (Best & Gehring, 1993; Keeley & House, 1993; Preston, 1993; Soltz, 1992). More recently, Graham and Hughes (1994) and Baldwin (2004) found that community college transfer students actually experience academic dismissal or failure rates of between 18 and 22 percent at the conclusion of their first semester at a four-year institution.

Similarly, the majority of research conducted in the Canadian context documents low GPA in the first year compared to a stabilized increase in the second, third and fourth years of study (Andres
In support of this finding, in 2003 the Government of British Columbia funded a study tracking 7,500 students over a five-year period at the University of British Columbia and other universities in the province. The study, performed by BCCAT determined that British Columbia college transfer students by graduation achieve the same sessional averages as direct entrants. By the last session for which the Council has data, transfers averaged grades of 73.1 percent, while students who had entered directly from a British Columbia high school achieved a statistically identical 73.3 percent (BCCAT, 2009, p. 7). Transfer students from all colleges experienced a decreased measure of academic performance in their first year at the University of British Columbia relative to their entry grade (BCCAT, 2009). On average, the drop is 4.5 percentage points, the largest is 8.6 (BCCAT, 2009).

In Ontario the picture presented is mixed. Gawley and McGowan’s 2006 study of the academic and social experiences of college transfer students at a Southern university found an array of experiences regarding transfer shock. While the majority of students still identified an overwhelming drop in their grades from community college to university (a GPA drop of 2.37 points), students were collectively unable to fully recover their GPA levels after two years (college to second year GPA change = -2.18) (Gawley & McGowan, 2006). Only seven students from the entire sample experienced transfer stability or increased GPA after their first or second year of university study (Gawley & McGowan, 2006). Moderate GPA drops were experienced by students in the arts and journalism, while students in social or community services, law and security, and police foundations programs had higher than average drops (Gawley & McGowan, 2006). The more specialized the program the higher the drop in GPA over time (Gawley & McGowan, 2006). Similarly, Cedja, Kayla, and Rewey (1998) found that students in both the mathematics and sciences and professions experienced statistically significant GPA declines
while students in both the fine arts and humanities and social sciences disciplines experienced positive increases (although insignificant) (Cedja, Kayla, & Rewey, 1998). These detailed findings suggest that performance is both subject and environment specific.

In contrast, research conducted by Bell (1998) and Craddock and Lawrence (1999) on credit transfer student performance at York University and Nipissing University, respectively, determine that college transfers receive similar grades and in some cases better (first and fourth year) than direct entry high school students. Recent research conducted at Nipissing University (2007) confirms previous findings, but also notes that the inclusion of failed grades in average calculations due to recent policy change could alter these results. Transfers from Ontario CAATs reportedly “have more failures as a percentage of total attempts than their high school counterparts” (2007, p.15).

However, bilateral transfer success cannot be predicated on GPA alone; instead, measures of student activity, study, and social culture are integral (Laanan, Starobin, & Eggleston, 2010).

**Engagement/Involvement.** The transfer shock that students experience is a manifestation of novel academic and social communities. Bilateral transfer students face frequent challenges learning the nuances and unwritten culture of the university/ four-year college. The research overwhelmingly suggests a population of students who are being underserved and are not the primary focus of services and social activities. In the United States, 40 percent of all seniors responding to the NSSE began college at an institution other than the one they currently attend (Kuh, 2003). At master’s granting and doctoral institutions, almost half of seniors are transfers and at some universities the proportion of graduating seniors who are transfers exceeds 70 percent (Kuh, 2003).
However, despite their large numbers transfer students are generally less involved in Canada and the United States in educationally engaging activities than their counterparts. Specifically, transfer students experience less than positive engagement in orientation week events, residence, classroom experiences/faculty-student interactions, and extra-curricular activities on and off campus (Gawley & McGowan, 2006; Kim, 2001; Kodoma, 2002; Kuh, 2003; McCormick, Sarraf, BrckaLorenz, & Haywood, 2009; NSSE, 2011; Townsend & Wilson, 2006, 2009). There are four key explanations for this lack of participation: a) transfer students are older and find campus pep events/activities juvenile b) they live off campus and must commute to attend special events, c) most have occupations and a primary role caring for dependents, and d) students must negotiate the cultural pathway of a new institution (Andres & Carpenter, 1995; Gawley & McGowan, 2006; Kim, 2001; Kuh, 2003). From frosh to finals bilateral transfer students face barriers to engagement.

**Orientation Week Events/Residence.** Social activities arranged in the first few weeks at universities and four-year colleges are meant to ease the transition of first year students: pre-orientation, frosh week, social seminars, and living arrangements in residence. In the United States, however, these activities are not routinely made available to transfer students (Kuh, 2003; McCormick, Sarraf, BrckaLorenz, & Haywood, 2009). These students are on the whole not entering a university or four-year college in their first year; instead, they are enrolled in their second or third year of study. Another roadblock may be that transition programs often place transfer students together, limiting their interaction with other students in orientations and seminars (Townsend & Wilson, 2006).

Likewise, in Canada, the maturity difference between incoming high school graduates and community college transfers is regarded as the largest deterrent to their participation in
orientation week functions (Gawley & McGowan, 2006; Lee, Mackie-Lewis, & Marks, 1993). Gawley & McGowan (2006) found that transfer students often comment upon their uneasiness: “I’m not going to cheer for the colour blue” or “It was sort of a silly thing” (p.3). These statements are indicative of the perceived maturity differences between community college transfer students and their high school counterparts (Gawley & McGowan, 2006).

Further, beyond the activities themselves bilateral students reflect upon their designated transfer student label, which ascribes them certain attributes. Upon recounting their entry into university many transfer students describe a process of identity construction (Andres & Carpenter, 1997; Gawley & McGowan, 2006; Lee, Mackie-Lewis, & Marks, 1993). Working identity constructs include age, maturity, year of study, past accomplishments, and the occupation of physical space (Gawley & McGowan, 2006). Gawley and McGowan (2006) recall one student in their study noting how the transfer experience made him feel uncertain. He was unsure as to which year he was actually registered in. In many ways, he academically felt as if “he was a third year university student, yet he was also taking first-year courses. We’re not really first year students. We’re not third year students. We’re sort of in between” (Gawley & McGowan, 2006, p.8). Others discussed their apprehensions about living in university residence: “I just couldn’t go into residence with all of these kids that are much younger than me... But when you have 18-year-olds now coming in and you’re 22 or 23, it’s a big difference” (Gawley & McGowan, 2006, p.14). Thus, peer relations do not come easy to transfer students; finding common ground on which to base a conversation can be challenging. Yet, extra-curricular and social events during the year do allow for a second attempt.

Social Events/Extra-curricular Activities Off and On Campus. Bean (1985) found that a student’s peers are more important agents of socialization than informal faculty contacts.
The literature in the United States is split in its findings on the social engagement of bilateral transfer students. While there are positive accounts of bilateral student engagement there are also a large portion of studies revealing limited social encounters. Positively supporting Bean’s model for student success, Kuh and Hu (2001) found that transfer students often made partnerships within their college department and in a cohort of people transferring at the same time (Casey & Davies, 1999; Kuh & Hu, 2001). Casey and Davies (1999) found students’ often recalled positive experiences had with friends:

I pretty much know everybody there ... friends with most everybody there. It's not really a problem ... the social part of it. A lot of my classes are major classes, so they are small, too. You have friends in class, but ... it's different.... It's like a business relationship. A lot of my friends are from the community college still. They transferred over, too. So, we're like old buddies and stuff (Casey & Davies, 1999, p.23).

While this student recalls new friendships made at the four-year college, he is also not shy to say that most of his friends were made pre-entry. Further, students commented on the student housing availability for families living in the United States and its social advantages. This housing experience allowed students to make contacts with other students and their families (Casey & Davies, 1999). The community watches each other’s children, hosts dinner parties, and engages in recreational activities on campus (Casey & Davies, 1999). This was not the situation of isolation many students thought would take place if they had families on campus.

Conversely, there is an even larger set of literature disclosing less than desired social outcomes for bilateral students. Lee, Mackie-Lewis and Marks (1993) found that on virtually every behaviour measure, tapping students' social integration, United States students who spent their undergraduate years entirely in a four-year college were significantly more advantaged. While
the largest differences are in these students' satisfaction with the academic aspects of their college experience, the former community college students are also significantly less satisfied with the social side of college life (Kuh, 2003). Kuh (2003) states that these differences are most likely the result of two factors: a) transfers might have constructed an idealized version of their academic and social life in college that was not realized and b) the social experience is institutional. The literature supports both of these claims.

First, students often cite their discontent with what they imagined their social four-year college life to be. There are a number of students who report having meager social lives; whether choosing social abstinence in order to be more academically successful or finding it difficult to find social connections (Casey & Davies, 1999). Others state,

They had to cut away a whole chunk of life … it's not the social life that I expected it to be. I'm really disillusioned actually…. you know … in terms of the support system … and it's just not happening.” “Socially, I don't know, there's too many people in the classes and strained. I can't go talk to everybody. It's hard to meet people (Casey & Davies, 1999, p.14)

Second, institutionally, students and faculty in the typical four-year college take a dim view of the academic and social standing of those who transfer from the community college (Lee, Mackie-Lewis, & Marks, 1993; Townsend & Wilson, 2009). They make little effort to welcome these students to their new institutions and difficulties with course choices, credit transfers, and social discomfort only exasperates the problem (Lee, Mackie-Lewis, & Marks, 1993).

In Canada, fewer refined transfer models and support programs than the United States leaves an even larger gap for improvement. The collegial groups of transfer students entering university from the same community college that Casey and Davies (1999) speak of is not a reality in
Canada. Students are often left not having transferred with those from past programs and must run the gamut alone (Arnold & Kompf, 2008). In Gawley and McGowan’s (2006) study of Ontario university transfer students, focus groups uncovered the relative difficulty of participating in extra-curricular activities. Among the questionnaire respondents, 61 percent said they had participated in some extra-curricular activities (Gawley & McGowan, 2006). However, only 34 percent of the questionnaire respondents said that their extra-curricular involvement has been about the same as in college and 49 percent stated their involvement has decreased (Gawley & McGowan, 2006). Students attribute this decrease to family and personal responsibilities, time spent on studying, and a lack of knowledge about extra-curricular activities offered (Andres & Carpenter, 1995; Decock, 2004; Gawley & McGowan, 2006; Townsend & Wilson, 2009; Vaala, 1991).

Cameron (2005), however, may offer insight into these somewhat bleak social transfer experiences. In her recent study on transfer students from a nursing community college program to a university in Ontario she found that the only socialization took place in the classroom as students left the campus immediately after classes. However, as relationships in the classroom strengthened students identified that they were no longer acutely lonely (Cameron, 2005). Additionally, carpooling commuter students reported that themselves and their car-mates developed particularly close and satisfying relationships that supported them through their first year at university (Cameron, 2005). Change elicits discomfort, but Cameron’s reflective study reveals that over time social activities change for the bilateral student, having a direct effect on classroom engagement.

**Faculty-Student Interactions/Classroom Engagement.** Faculty student interactions and classroom engagement for transfer students have mirror like findings in the United States
and Canada. Therefore, they will be discussed as one population. As the predecessors have informed us, quality student-faculty interactions appear to help students socialize to the norms of their institution and create a closer bond between student and institution (Pascarella & Terenzini, 1991). However, for transfer students, such student-faculty interactions are also strongly associated with a positive and significant development of academic content and skills (McCormick, Sarraf, BrckaLorenz, & Haywood, 2009). Faculty-student interactions have commonly been cited as being particularly important for transfer students to four-year colleges (Berger & Malaney, 2003; Casey & Davies, 1999; Kuh & Hu, 2001). Perceiving a supportive campus environment is said to be “inversely related to transfers students’ marginalization—the more supported these students feel, the less likely they are to feel isolated on campus” (Kodoma, 2002, p.12).

However, despite how important these interactions are, if they do not occur then students are left unmotivated and unengaged. This negative affect is felt by student across North America; often students compare their pessimistic experiences at the university or four-year college to their original two-year college experience (Casey & Davies, 1999; Gawley & McGowan, 2006; Kodoma, 2002; Kuh & Hu, 2001; McCormick, Sarraf, BrckaLorenz, & Haywood, 2009). Casey and Davies (1999) upon interviewing transfer students at a western United States four-year college determined that students’ faculty teaching-learning experiences at the university were less positive than those at the community colleges. For many, faculty interaction and classroom engagement included rote memorization of facts and figures: "I figure I'd have to go to class because I'll miss something. And I found out that I won't miss that much, because all they do is talk and you write it down” (Casey & Davies, 1999, p.12). Other trends in the faulty-transfer student experience concern faculty availability, assignments/expectations, and the subservient
role students must play when communicating with professors over grades, sickness, and scheduling (Casey & Davies, 1999).

Most frequent was the feeling of anonymity. Gawley and McCowan (2006) recall one female student’s fears about not being noticed by her professors due to the overrepresentation of women in her degree program. She felt that male students would get noticed in a sea of anonymous female students. (Gawley & McGowan, 2006).

Others experienced a loss of community, self, and security. Far from feeling satisfied, most students were overwhelmed:

... a university is different from the community college ... you know, it's broken up in different colleges and there is different administrative buildings and it's just like this huge, lumbering beast ... it's really kind of bewildering and you really don't have someone who just gives you what's good for you in your own personal situation (Casey & Davies, 1999, p.15).

As the institutions become larger, students state opportunities for individual interaction are fewer (Berger & Malaney, 2003; Casey & Davies, 1999; Kuh & Hu, 2001; McCormick, Sarraf, BrckaLorenz, & Haywood, 2009).

While overall, classroom experience is fairly negative there are exceptions. Some found refuge in e-mailing professors, a preferred method of communication, which had more beneficial outcomes (Casey & Davies, 1999). This adaptive behaviour is telling of students’ persistence and graduation rates.

Persistence/Graduation. Persistence and graduation rates for bilateral students are quite positive. Despite social difficulties transfer students are resilient. Students in the United
States fair better on the whole than those in Canada, which may be a reflection of the resources available to them. In the United States, Lee, Mackie-Lewis and Marks (1993) conclude that there is no disadvantage of community college attendance on persistence to graduation. Statistical adjustment for background, behaviours, and institutional characteristics did not affect the unadjusted difference in this probability for these two groups (Lee, Mackie-Lewis, & Marks, 1993). On graduate school outcomes, 76 percent of the four-year group reported aspirations for graduate study compared to 70 percent of the transfer group (Lee, Mackie-Lewis, & Marks, 1993). Supporting these findings, Arnold (2001) and Saupe and Long (1996) in analyzing the effects of institution type on transfer student success, determine that students from two-year source institutions fair as well as those from four-year source institutions.

Likewise, student persistence is positively attributed to transfer students in Canada. However, unfortunately research in this area is limited. Most recently, Martinello’s 2008 longitudinal sample of Canadian postsecondary students, 1997 to 2003, examined the transitions and adjustments made by students throughout their time in postsecondary education. Of this sample almost a third subsequently graduated, 42.5 percent were continuing, and 25.2 percent left without completing their second program. Further, college changers who enrolled in a second college program were not more likely to be successful than changers who transferred vertically to a bachelor’s level program (Martinello, 2008).

Graduation rates vary in the United States and Canada; the province of British Columbia is an example where students perform exceptionally well. In the United States, Schmidtke and Eimers (2003) find that attending a residential campus, transfer GPA, transfer hours, transferring from another campus within the system, and being female are positively associated with graduating in six years. Being a minority student and transferring to an urban campus were negatively
associated with graduating (Schmidtke & Eimers, 2003). Overall, the literature reveals that transfer GPA and credit hours are both positive indicators of a transfer student’s prospect of graduating (Author & Mullen, 2002). As one would expect, students who transfer with more credit hours graduate at a higher rate as do those with higher GPAs (2003). Community college transfers with less than a 3.0 GPA have substantially higher graduation rates when they transfer with more than 48 credit hours compared to those who transfer with less than 48 credit hours (2003). These findings are supported in a diverse range of research (Glass & Harrington, 2002; Koker & Hendel, 2003; Townsend, McNerny, & Arnold, 1993). Another aspect of transfer unique to two-year transfers, and more common in the United States, is the obtainment of an Associate’s degree prior to transfer (Schmidtke & Eimers, 2003). Students who transfer from a two-year institution with an Associate’s of Arts degree have higher graduation rates on average than those who transferred prior to earning this level of education (Saupe & Long, 1996; Schmidtke & Eimers, 2003).

Most informative in the United States is the literature on graduation rates and institutional size. Lee, Mackie-Lewis and Marks (1993) in their study of bilateral transfer students hypothesized that relatively smaller institutions, less than 1,500, would offer more integrative experiences. They also predicted that transfer student graduation rates in the states of California and Florida, those with the most comprehensive transfer systems, would be higher. However, both were found to be shockingly unfounded upon analysis of the data (Lee, Mackie-Lewis, & Marks, 1993). Wide opportunities and clearer pathways to transfer do not affect graduation rates of bilateral transfer students. Instead, students’ graduate at the same rate as their peers in other geographic locations. However, students did benefit from progressive admissions policies and procedures and increased supports/resources.
The Canadian landscape of graduation for transfer students is an inverse of the United States. Transfer students on the whole do not graduate at higher rates than their peers. Additionally, it is important to note that provinces with comprehensive transfer systems have a direct positive affect on graduation (Andres & Carpenter, 1997; BCCAT, 2004; Hilmer, 1997; Jones & Lee, 1992; Mueller, 2008; Rozon, Sudmant, & Lambert-Maberly, 1998). While attending a two-year institution may be worthwhile financially, students who enroll with the intention of achieving a four-year degree are less likely to complete their bachelor’s degree within five-six years compared to direct entry students (Bell, 1998; CUCC, 2008b; Drewes, Maki, Lew, Willson, & Stringham, 2012; Hilmer, 1997; Mueller, 2008; Stewart, 2012). The transfer process has been found to hinder actual completion of a bachelor’s degree (Andres & Carpenter, 1997; Jones & Lee, 1992). The most work, however, is needed in the Atlantic provinces where the Council of Atlantic Ministers of Education and Training (CAMET) and the Canada Millennium Scholarship Foundation released a report stating that relatively few students make the switch from a community college program to a university—just 1.7 percent (2009). Thus, graduation for transfer students in the Atlantic provinces is almost non-existent (CAMET, 2009).

Luckily, in British Columbia outcomes are uplifting: of those students admitted on the basis of college transfer in 1992/1993 and 1993/1994 76 percent completed a degree within four or five years of entering the University of British Columbia (Rozon, Sudmant, Lambert-Maberly, 1998). More recently, it was calculated that of the entire university system, approximately 60 percent of college transfer students graduate (BCCAT, 2004).

To summarize, the literature on bilateral students reveals many key findings:

- Financial barriers to access include limited financial assistance, limited time to work, and the inherent risk of taking out a loan.
• Generally from a lower socio-economic status, bilateral students begin their studies at the community college to save on expenses. The move to university/four-year college can be a strain without scholarship/bursary assistance.

• In the United States and Canada transfer students’ GPAs experience a transfer shock in the first year of study. However, this dip in performance is only temporary, and most make a full recovery in their second or third year.

• Engagement is low for bilateral transfer students on all measures: orientation events/residence, extra-curricular activities, and faculty/classroom interaction.

• Persistence is positive across the United States and Canada, while graduation reveals different trends. Students from the United States have high graduation rates, distributed across all states, whereas in Canada graduation rates are lower in comparison with the exception of British Columbia.

More practical examples of institutional efforts to inform and welcome transfer students need to occur. For example, one group that has taken up the challenge to recognize and promote the academic excellence and involvement of transfer students is the Tau Sigma honorary society in the United States, founded by Professor Lee Colquitt at Auburn University (www.auburn.edu/tausigma). Seventy chapters now exist all at public universities, and others are in the process of forming at other schools (Kuh, 2003). Chapters welcome top achieving transfer students entering with a full year of credits form a two-year college and provide motivation for the academic excellence of all incoming transfer students, enhance the reputation of all transfer students, provide a common bond among transfer students, promote the involvement of transfer students, and provide up to $19,000 in scholarships each year. Similarly, in Canada, at the University of Calgary, students can create a personalized schedule of events during orientation week that includes specialized one-of-a-kind transfer and mature student sessions recognizing
past educational experiences alongside general orientation sessions. These sessions discuss hints and tips for success from experienced transfer students who understand what it’s like to be new to the University of Calgary partway through their degree (University of Calgary, 2015). The key is to create programs for success and continue them throughout the year and into degree completion. In Ontario, similar programs have started to gain traction with the support of the new credit transfer framework.
Chapter 3
Theoretical Framework: Addressing Informational (A)symmetries and Behaviour

This dissertation uses concepts from contract theory and behavioural economics in order to construct a lens through which to understand the problem and interpret the results. The goal of this section is to present this theoretical framework. The discussion proceeds in two stages. First, a brief justification for the application of economic concepts in the context of a study on postsecondary education systems is provided. Second, the general paradigm is described, followed by a detailed discussion of its component parts.

Applicability of the Economic Model

It is important to first consider the applicability of market economic concepts to a study of postsecondary education systems. A simple definition of a market is a set of social institutions in which a commodity exchange takes place at an agreed-upon price, and to some extent is facilitated and structured by those institutions (Hodgson, 1988; North, 1990; Richter, 1996; Richter & Furubotn, 1996; Rosenbaum, 1999; 2000). These exchanges are formal or informal contractual arrangements involving the transfer of property rights, and the market therefore consists in part of mechanisms to structure and legitimize these activities, such as the enforcement of contracts and property rights through courts and legal institutions.

The extent to which postsecondary education systems satisfy the market definition is a controversial question. First, government interventions are commonplace in the form of college and university regulations concerning admissions and enrollment procedures, accreditation granting, funding etc. Since Ontario’s postsecondary education system largely depends on government subsidization, this calls into question whether the system could otherwise exist
independently as a free market. This broader role of government incapacitates the traditional, Neo-classical view of markets as autonomous sites in which buyers and sellers engage independently.

Second, the market concept has been challenged on the basis that ‘postsecondary education’ is not a pure commodity for exchange, either because it is unquantifiable (Dill, 1997) or because it is treated as a public—rather than a private—good (Thurow, 1996). While this researcher disagrees with the interpretation of postsecondary education being treated exclusively as a public good (although there are certainly positive public externalities of having a better-educated populous), the notion that postsecondary education is not a pure commodity warrants further discussion. Postsecondary educational attainment is a broad concept that encompasses the human capital element of learning and classroom training as well as less-tangential factors such as the college or university’s reputation, the program reputation, and other non-observable elements that make up the reason for attending school, all of which signal to prospective employers the quality of the student (Spence, 2002). However, some of these factors are difficult to measure and therefore render it difficult to assign ‘value’ to a diploma or degree. This is not to say, however, that the market concept fails here. A commodity that carries with it an element of uncertainty may still be assigned a price in the market, and buyers and sellers may still engage in transactions. This is analogous to the notion of a used car market, where a car may either be a peach or a lemon—prospective buyers are still able to assign value, and a market still exists, even though uncertainty also exists. These concerns have prompted many researchers to think about postsecondary education systems as ‘quasi-markets’ (or mixed economy markets), which, for simplicity, is the point of view adopted here (Marginson, 2004; Niklasson, 1996; Williams, 1991). Whether or not a pure market for postsecondary education exists does not infringe upon
the fact that the concepts from economics used in this study contribute greatly to the understanding of problems related to transfer literacy.

It is also worth noting that this dissertation is a study of credit transfer, and not of a market for postsecondary education more broadly. The commodity of transfer credit is more quantifiable in the sense that, *ex post*, students are able to perfectly observe which courses transferred and which did not.

Finally, the concepts from contract theory and behavioural economics used in this study are theoretical frameworks for describing how individuals form expectations of possible outcomes and make decisions when faced with different sets of incentives (Martimort, 2008). These concepts are often applied to the analysis of economic agents in markets, but they are themselves not dependent on the market assumption. In fact, contract theory is often utilized in research pertaining to anti-competitive or non-market issues, such as political institutions and voter/electoral behaviour, law and economics, and collusion/anti-trust enforcement. For example, Banks and Sundaram (1993) present a stylized infinite-horizon median voter model in which voters provide incentives for electoral candidates to take costly actions (moral hazard) and choose only those candidates who take the higher actions (adverse selection). The model shows that equilibria exist in which: 1) voters employ a retrospective voting rule of obtaining an incumbent if and only if the rewards remain above a certain threshold; and 2) faced with this re-election rule, incumbents adopt time-invariant desirable actions. This type of analysis can be helpful in assessing the relative efficiency of different types of electoral systems. Cohen (1987) and Petrakis and Xepapadeas (1996) analyze how moral hazard problems in international environmental regulation agreements affect government monitoring/enforcement of such regulations, and countries’ ability to implement international agreements even when some
countries do not sign on to participate, respectively. Laffont and Martimort (1997) analyze how regulatory policy can mitigate anti-competitive behaviour when firms are able to collude under asymmetric information.

While the aforementioned studies are but a few seminal papers drawn from large literatures built on lessons from contract theory, this discussion points to the wide-spanning importance of asymmetric information in the analysis of institutions. This point is further illustrated in a recent online post by Stuart Butler, senior fellow with the Brookings Institute—a prominent independent and non-profit public policy institution in the United States—and former Director of the Center for Policy Innovation and Vice-President for Domestic and Economic Policy Studies at The Heritage Foundation. Butler states that the magnitude of asymmetry of information favouring suppliers of higher education in the United States keeps customers in the dark about the true quality of their schooling and permits institutions to maintain profitable and cross-subsidized products due to the complexity of this market. However, “information asymmetry is beginning to erode in the world of higher education. That means the market will do better in weeding out institutions that cannot show measurable value and make it easier for new forms of competition to enter the picture” (Brookings Institute, 2015). Hence, understanding the structure of information asymmetry in (quasi-)markets for higher education (in any country) is important for anticipating how such markets are likely to evolve in the future.

Overview of Paradigm

Recall that this study defines transfer literacy as 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.

Figure 1 | Factors Contributing to Transfer Literacy

There are two factors that contribute to students’ and administrators’ transfer literacy (see Figure 1). The first is the extent to which symmetries and asymmetries of information exist in the transfer credit system:

- A 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’, do not withhold information, share common knowledge about the credit transfer environment (even if this knowledge is incomplete or incorrect), and hold common beliefs or expectations about future outcomes.
• An *asymmetry* refers to an incongruity of 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 (Akerlof, 1970).

As discussed, below, contract theory helps to provide insight into how individuals make informed decisions and respond to incentives in the presence of asymmetric information (Martimort, 2008). In addition, it is important not only to take stock of what information is or is not available but also how individuals process information that is available. While contract theory helps with the former, we turn to concepts from behavioural economics to gain insight into the latter. Such concepts include how individuals respond to information when they are boundedly rational and how they benefit from libertarian/soft paternalism. These concepts will be discussed in more detail, below.

*Contract Theory*

Contract theory is a branch of economic research that investigates how stakeholders interact and form contractual arrangements often in the presence of asymmetric information (Martimort, 2008). This paradigm is used throughout this research 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 (1970). Similarly, student admissions into postsecondary education—including credit transfer—are contractual negotiations involving asymmetric information wherein both stakeholders 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 arise after a contract has been entered into) (1970). 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 theoretical 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.

Adverse selection can be reduced or mitigated through the use of two mechanisms, screening and signalling. The response to situations where one stakeholder has information that the other stakeholder(s) lacks is to retrieve some or all of the information (Kreps, 2003). An equilibrium may be achieved by employing:

- **Screening**, which refers to a situation where the uninformed stakeholder takes the initiative and offers the informed party a menu of choices and the choice from the menu
becomes the informative signal (screening is especially prevalent in cases where the uninformed stakeholder provides a service for the informed stakeholder); or

- **Signalling**, which refers to a situation where the informed stakeholder takes the initiative to provide the uninformed with selected information (Kreps, 2003).

An *equilibrium* is an optimal set of actions that stakeholders undertake based on their information sets. An equilibrium may either be ‘first-best’, i.e. arrived at through perfect information for all stakeholders, or otherwise ‘second-best’ if it is arrived at through optimal behaviour strategies given that information is incomplete or asymmetric (Kreps, 2003).

Institutions/administrators 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). With regard to credit transfer, institutions/administrators employ screens when interacting with students during the formation of contractual agreements in order to reduce or mitigate adverse selection. Since the credit transfer student is seeking both admission and credit, they experience screens related to each of these processes, which is where this research expands on previous literature investigating adverse selection in college choice and admissions models. A comprehensive review of all policies and procedures governing credit transfer across Ontario’s 24 public colleges and 20 public universities reveals that administrators utilize several sorting mechanisms or screens. Examples of common screening practices include:

- Articulation agreements requiring specific courses, letter grades and a minimum average be completed at the college which are prearranged for admission and credit transfer acceptance at the university.
- Credential or level of completed postsecondary (minimum number of semesters or years in a diploma, advanced diploma or applied degree) and prerequisite program requirements.

- Minimum admissions average and prerequisite average depending on the program (minimum cut-off ranges).

- Minimum grade or average required to transfer a course(s) from a college diploma, advanced diploma or degree level program.

Where screens have not been established by the institution, students as the informed stakeholder must take the initiative to signal information about themselves as applicants. In order for administrators to learn about credit transfer applicants, students 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 addition to deciding what to communicate to institutions to be evaluated for admission and credit, students also signal their expected fit for a program by choosing with which universities to communicate.

While the student takes the initiative of signalling, choosing a message from a set of possible messages, institutions/administrators have the responsibility of disseminating admission expectations and assessment criteria in order for students to signal efficiently. In equilibrium, the value of the information signalled by the informed stakeholder (the students) depends on how it is correlated with the characteristic of real interest to the uninformed stakeholder (the institutions) with which they are communicating (Kreps, 2003). Students must have a point of reference in order to understand the value and impact that the information they reveal will have
on the transaction. It is assumed that the stakeholder sending the signal recognizes how the signal will be used and therefore responds optimally for themselves (2003).

The policies and weights that institutions assign to applicant characteristics and academic merit in their admissions models impacts the information and potential signals received (Ishii & Chamberlain, 2010). This is particularly important when institutions are recruiting credit transfer students, as the academic regulations in place often have variations from standard procedure (residency requirements, bursary, scholarship and provincial funding eligibility etc.).

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

*Behavioural Economics*

The discussion in the previous subsection highlights the importance of reducing informational asymmetries to improve transfer literacy. However, the accessibility and reliability of information is not in itself sufficient to resolve problems that may exist in the transfer system. It is also important to take into account the ways in which individuals process information and students’ abilities to intake and comprehend information in order to better-understand how governments and regulators can more efficiently ‘package’ information to enhance the transfer credit process.

There is a growing body of research in behavioural economics that finds individuals often struggle to make decisions based on overwhelming amounts of information (Iyengar & Lepper, 2000; Rubinstein, 1998; Sethi-Iyengar, Huberman, & Jiang, 2004; Sims, 2003). Specifically, individuals may often behave in a *boundedly rational* manner (Rubinstein, 1998). In other cases,
individuals may choose not to act on available information if the perceived costs of collecting, processing, and responding to such information are larger than the perceived gains from doing so. In this case, individuals are said to be *rationally inattentive* (Sims, 2003). The standard assumption in economics is that individuals make rational decisions and that more choice is always beneficial, provided that such information is accurate, free, comprehensible and easily accessible. However, the rationality of individuals can often be limited by information they lack, the ways information is provided, the cognitive limitations of their minds, and the finite amount of time they have to make decisions (Sims, 2003). In reality, more choice may not be as desirable as it seems, as weighing alternatives may be costly.

Evidence of such behavioural problems have been examined in laboratory and field experiments where research has been conducted regarding the motivation of individuals when limited as opposed to extensive choices are available. In Iyengar and Lepper’s (2000) popular field experiment, a tasting booth for exotic jams was prepared at a gourmet grocery store. Customers at the grocery store “encountered a tasting booth that displayed either a limited (6) or an extensive (24) selection of different flavors of jam. The two dependent measures of customers’ motivation were their initial attraction to the tasting booth and their subsequent purchasing behaviour” (Iyengar & Lepper, 2000, p. 996). The grocery store, Draeger’s, is known for the large assortment of specialty products it offers to customers (250 varieties of mustard, 75 olive oils, and 300 jams). During the five-hour experimental periods when the limited choice tasting booth was displayed, 260 customers encountered the booth. While the extensive choice booth was displayed, 242 encountered the booth. The results indicated that 60 percent of customers stopped at the extensive choice booth as compared to 40 percent who stopped at the limited choice booth (see Figure 2). However,
Although extensive choice proved initially more enticing than limited choice, limited choice was ultimately more motivating ….

Nearly 30% (31) of the consumers in the limited-choice condition subsequently purchased a jar of jam; in contrast, only 3% (4) of the consumers in the extensive-choice condition did so (p. 997).

*Figure 2 | Limited vs. Extensive Choice Decision Making - Sampling and Purchasing*

![Figure 2](image)

Note: Figure adapted from Sethi-Iyengar, Huberman, & Jiang. (2004). *How much choice is too much, contributions to 401(k) retirement plans.* Philadelphia, PA.

In fact, there were also no significant differences in the number of jams sampled between the customers who visited the limited vs. extensive choice booth.

A more multifaceted example can be observed in studies related to how individuals make optimal investment decisions in financial markets. The process of investing often requires a detailed understanding of fundamental financial market concepts, the full set of available investment strategies, as well as details about how much savings are needed to generate target levels of income at later stages of life and how much income from savings will be needed at various future stages of the life cycle. Some studies find that individuals often follow simple ‘rules of thumb’ when making investment strategies to help simplify this process (Benartzi & Thaler, 2001; Choi, Laibson, & Madrian, 2011).
Other studies find that interventions to reduce the complexity of making investment decisions, such as offering workers at firms the option to join employer-sponsored pension plans with pre-specified investment portfolios and savings rates, significantly improve savings outcomes (Beshears, Choi, Laibson, & Madrian, 2013). Providing individuals with too much information can actually be detrimental in the sense that it may cause them to procrastinate or delay making decisions, or to perceive the process as too difficult and view it as something that requires an expert opinion (Sethi-Iyengar, Huberman, & Jiang, 2004). Thus, simplifying information may be as important as making it available in the first place.

In addition, a large literature finds that individuals often behave passively to default options. For example, countries in which individuals are opted into being organ donors but who may opt out of this arrangement if they so desire, have much higher organ donation rates than countries in which individuals must take the initiative on their own to opt into being organ donors (Abadie & Gay, 2006). Similarly, individuals who belong to workplace pension programs have been found to save significantly more when their employers automatically enroll them into the plan rather than requiring them to opt-in (Beshears, Choi, Laibson, & Madrian, 2009; Choi, Laibson, Madrian, & Metrick, 2004; Madrian & Shea, 2001). This pattern of procrastination or inertia may arise because individuals often lack information, find it difficult or time-consuming to process information, or otherwise prefer to delay complex decision-making for reasons that are not well understood.

To overcome these cognitive limitations, behavioural economists often advocate the use of programs that educate, simplify choice, and direct (‘nudge’) individuals in desirable directions. A nudge is a libertarian/soft paternalistic program—a concept first coined by Richard Thaler, an economist at the University of Chicago Booth School of Business, and legal scholar Cass
Sunstein—that directs individuals in a way that is in their perceived best interest (paternalism) but also maintains freedom of choice by allowing them to opt out of such arrangements, if desired (libertarianism) (Thaler and Sunstein, 2003).

It is important to note that, based on the concept of soft paternalism, nudging mechanisms can only operate effectively if individuals who are made worse off as a result of such an intervention understand how and when to opt out of the arrangement if desired, which could still require additional policy efforts to reduce information asymmetry (Thaler & Sunstein, 2003). The view adopted by this researcher, is that a nudge should not be viewed as a substitute for providing more information about transfer to students. For nudges to be efficient, it must be that individuals who wish to opt out of such arrangements both have the ability to do so, and have the understanding of why they may wish to do so (Thaler & Sunstein, 2003). Thus, more information helps to provide more-literate students with the knowledge to decide whether to opt out of default options on their own, as desired. In addition, what individuals decide they want may often be a product of the way a choice is framed. How can nudges be implemented to help individuals overcome their cognitive limitations? When it comes to credit transfer, this can be done by considering the student-centric nature of policies and procedures.

With this in mind, there are a few items to consider when relating this economic paradigm to transfer students:

- Assumption that there are right and wrong choices are much more pronounced and as such the stakes are high (Sethi-Iyengar, Huberman, & Jiang, 2004).
- Perception that choice making requires expert information and therefore individuals may decide to surrender their choice to another (Lepper, 1983; Sethi-Iyengar, Huberman, & Jiang, 2004).
• Expansion of freedom or choice means that individual’s dependence on institutions and others intensifies (Schwartz, 1994; 2004).

• Creation of common advisor knowledge and understanding of concepts, policies and procedures; intentional institutional marketing; and dissemination of information are fundamental.

Overall, this discussion emphasizes that overwhelming students with more information, although it reduces information asymmetries, can actually be harmful for other reasons. Students may regard learning about such information as too difficult or not worthwhile such that they go on to procrastinate, delegate the decision-making process or make no decision at all. In addition to improving information, it is also necessary to package such information in a way that is succinct, understandable, accessible, and simple enough to make difficult decisions easier.

Building on Existing Applications

While the application of economic concepts to credit transfer and articulation research is fairly inventive, these concepts have been used to investigate college choice and admissions processes, performance reporting, funding and budgeting.

College Choice and Admissions

College choice research provides insight into the perceptions students have about the admissions process and the varied set of knowledge they may have about the process compared to administrators. Researchers have traditionally maintained that the expectations that materials and personal contacts can build must provide congruence between the student and the institution (Lenning & Cooper, 1978; Noel, 1976; Pascarella, 1982). More specifically, Noel (1976) states, that for the student, this symmetry means the right institution, the right program and the right
course-entry level. However, this level of congruence may not be achieved. Admissions and financial assistance practices are often not fully revealed and or understood by students. Research out of the United Kingdom highlights the ‘consumer confusion’ that is often present during the selection of degree programs and specializations (Drummond, 2004; Kogan, Bauer, Bleiklie, & Henkel, 2000).

Seminal economics literature on college choice and admissions includes work by Gale and Shapley (1962); however, more recent research has introduced uncertainty in the evaluation of the applicant models studied (Chade, Lewis, & Smith, 2006; Nagypal, 2004). Further developments have been made by Ishii and Chamberlain (2010), as they expand the signalling game that occurs when seeking admission within postsecondary by including within their model “a portfolio of signals” that students present (p. 3). Most models have analyzed students as submitting a single signal to the colleges with which they wish to communicate, but these researchers model the equation a little differently by focusing solely on signalling versus matching. The authors wish for us to suppose that admissions are based on some set of underlying applicant characteristics, which together form the academic merit of an applicant when weighted (aptitude, scholastic achievement and character). Weights reveal how much an institution values each characteristic and therefore a constant trade among the applicant characteristics occurs (2010). While it would be easy to offer admission to those students with the highest values, institutions cannot directly observe the academic merit of a student and therefore they must make decisions based on apparent academic merit (2010). In fact, both sides face uncertainties: 1) students find that admissions are uncertain and costly and this leads to a ‘non-trivial portfolio problem’ from which students must decide how many universities, with which universities and why to apply 2) institutions find that the yield of admission and quality of potential enrollees are uncertain (Fu, 2013). Institutions must account for “students’ strategies in
order to make inferences about quality” (Fu, 2013, p.225). Moreover, each policy created will impact the information and potential signals they receive. This is similar to the issue in which universities find themselves when admitting credit transfer students; however, the stakes increase two-fold as students must signal both admissions and transfer criteria, often simultaneously.

Numerous applicant characteristics have been modeled and examined in the admissions literature. Lang and Lang (2002) found in their work on special interest groups and selective admissions that students generally misperceive how selection processes work, or even, what their purposes are. Upon being interviewed, students stated that the admissions selection process that obtained information that would allow the student to be classified to a special interest group was a reflection of competitive admissions (2002). However, no college or university in the study reported that this form of selection was “used to improve the predictive value of the admissions process” (p.135). Students’ ability to predict the criteria that will be used for admissions and administrators’ ability to predict which policies will garner optimal students is a long-standing debate.

Ishii and Chamberlain (2010) find that institutions are faced with some incentive to increase the relative admission weight placed on SAT scores, in response to SAT preparation. Dearden, Li and Meyerhoefer (2011), following game-theoretic results, “empirically test the hypothesis that signals (in the form of contacts) are important to admissions decisions and that the importance is increasing in the quality of the applicant” (p. 2). The researchers find that higher-quality applicants are more likely to contact universities and on average applicants who make contact are significantly more likely to be admitted. Avery and Levin (2010) also utilizing game-theoretic results, model early admission by examining the sorting effect under which early applications convey enthusiasm and the competitive effect under which lower ranked institutions adopt early
decision policies to attract highly ranked students from more highly ranked institutions. The results reveal that institutions appear to favour early applicants and that selective schools, particularly those who are lower in rankings, may benefit from the use of early admission programs (2010). Finally, Fu (2013) determines that increasing institutional capacities and tuition costs have limited effects on college attendance. And due to noise in various ability measures, “when colleges lose access to one measure of student ability, more elite colleges draw on higher tuition to help screen students, while non-elite colleges lower their tuition to compete for high-ability students who apply to them as insurance” (p. 233).

**Performance Reporting and Funding**

Concepts from contract theory also inform existing work on performance reporting and funding in postsecondary education. The terms accountability and assessment fill conversations, processes and policies of both governments and institutions and as such many countries have come to include postsecondary education in performance reporting and funding. The assessment of various facets of postsecondary education has appeared to be an antidote for all perceived ills existent in the education system (Burke, 2003). Colleges and universities have been asked to identify the knowledge and skills that students should possess upon graduating to assess their achievement and improve institutional performance (Shafritz & Russell, 2000).

While performance reporting can be used for varying reasons, one important function is the ability to increase market symmetry among students (buyers) and institutions (sellers). The information that is made available via public reporting is information that may not otherwise be available to students. With increased information about institutions students can choose to make informed decisions about their education and hopefully better understand both its net economic worth and relative social benefit (Hook, 2004; Lang, 2004). Lang (2004) explains, “if
information provided by performance indicators was added to the information already available in the market from universities and colleges, students would then make better choices, and, in theory anyway, select programs and institutions with higher employment rates, lower default rates, and so on” (p.5). The Association of Colleges of Applied Arts and Technology of Ontario (ACAATO) reports that the Key Performance Indicators (KPIs) have done just that, stating, “the obligation to measure and report student, graduate and employer satisfaction ratings, graduate job placement statistics and student retention data provides public information that appears to influence students’ choice of college” (Hook, 2004, p. 3).

Performance reporting can be conceived of as a way to supplement information about market choices. Beyond tuition fees, which often state little about the worth of an education, students, parents and employers often do not know the true cost and intricacies of higher education (Hook, 2004; Spence, 2002). Research suggests that the market for higher education can, at times, be quite asymmetrical. More specifically, performance reporting is the use of performance indicators without tying results to funding. Publicity is used as a lever by publishing the results of colleges and universities performance on various selected indicators (Burke, 2003; Burke & Serban, 1998). This form of reporting generally requires comparability among institutions: the same types of institutions are most commonly compared to allow for meaningful results (OCUFA, 2006). Common lists of indicators measured across all institutions in a province or state are determined for measurement. It is true of performance reporting that “what is publicized is what is valued” (Burke, 2003, p.75). The audience of such reporting stretches beyond governments and administrators like that of performance funding to the consumers of higher education. Current and future students, parents and employers are all examples of invested stakeholders who become better informed of the postsecondary education system and institutions themselves under performance reporting.
By contrast, performance funding adds institutional performance to the “traditional considerations of current costs, student enrollments and inflationary increases” and allocate resources for “achieved rather than promised results” (Burke, 2003, p. 75). While the previous practice was to front end funding to encourage valued programming and research this approach is outcome based. Performance funding is similar in its use of performance indicators; however, in performance funding the relationship between funding and performance is formulaic and automatic (Burke, 2003; Burke, Rosen, Minassians, & Lessard, 2000; Lang, 2004). An institution meets a set target on a defined indicator and receives a predetermined amount or percent of funding.

Benefits and disadvantages of each method are argued among scholars and stakeholder groups. Nevertheless, performance reporting is currently regarded as the “preferred approach to accountability” (Burke, 2003, p.78). Performance funding has declined according to the Rockefeller Institute in the United States: the desirability of these methods in theory is matched by its equal difficulty in execution. The Institute states, “It is easier to adopt than implement and easier to start than to sustain” (Burke et al., 2000, p.5). In the early 21st century Arkansas, Colorado, Kentucky and Minnesota stopped using such practices altogether.

Education. These biannual reports assess states across six performance categories: Preparation, Participation, Affordability, Completion, Benefits and Learning. The latest *Measuring Up* reports consist of 50 state report cards and provide international comparisons for the nation and states involved and measure the extent to which colleges and universities prepare students to contribute to the workforce (Graduates Ready for Advanced Practice indicator) (National Centre for Public Policy and Higher Education, 2011). Overall, the purpose of the report is to give the public and policy makers the information to assess and improve higher education (National Centre for Public Policy and Higher Education, 2011). The National Centre for Public Policy and Higher Education online website allows the public to compare any state with the best-performing states on each performance category, compare indicator scores and state grades and view previous report cards.

In Canada, the national news magazine Maclean’s is often cited as the most well-known use of performance indicators external to government. Maclean’s publishes an annual ranking of Canadian universities, which is known to be both controversial and best-selling: *The Maclean’s Guide to Canadian Universities*. The Maclean’s website offers students, parents, employers and researchers the ability to review each ranking and use the “Personalized University Ranking Tool” to create their own assessments based on any seven indicators of choice from the following categories: students/classes, faculty, resources, student support, library and reputation. Another popular performance measure in Canada is the NSSE, which is used across all Ontario universities and selected colleges. The survey asks randomly selected undergraduates about how they spend their time, what they have gained form their classes, interactions with faculty and students, use of services and educational activities. The results are organized into five benchmarks of effective educational practice: Active and Collaborative Learning, Level of
Academic Challenges, Student-Faculty Interaction, Enriching Educational Experiences and Supportive Campus Environment (National Survey of Student Engagement, 2011).

In the Ontario setting, the provincial government developed KPIs. The first KPIs were introduced in the mid-1990s by the Government of Ontario to increase the accountability of the colleges and universities and to balance information between buyers and sellers in the market of postsecondary education (Lang, 2004). In this balancing of information, the provincial government believed a market would be created that would affect student choice and in turn currency. Initially the KPIs were designed for public information sharing with no funding mechanism attached. Five KPIs were identified and defined by the Government of Ontario, colleges and universities collaboratively: Graduate Employment, Graduate Satisfaction, Employer Satisfaction, Student Satisfaction and Graduation Rate. These KPIs exist today as a performance funding mechanism in which two percent of the provincial operating grant to colleges is allocated on the basis of annual performance.

Performance Funding and Credit Transfer. With regard to transfer credit in the province, the recent approach has largely been that of performance funding. As discussed in the introduction, system-wide indicators on participation in the credit transfer system were first established for the 2009-2010 MYAA report-back process (Kerr, McCloy, & Liu, 2010). Introduced in 2006, MYAAs allow the Government of Ontario to review progress using strategic system-wide performance indicators (principles of access, quality and accountability). The Agreements were created as a result of the 2005 budget as the provincial government introduced Reaching Higher: The McGuinty Government Plan for Postsecondary Education. This plan would work to deliver a cumulative investment of $6.2 billion in Ontario’s postsecondary education system by 2009-2010. Awarded annually, the MYAA arrangement is a central
component of the performance and accountability relationship between the Government of
Ontario and postsecondary institutions.

However, the creation of new measures for the reporting of credit transfer activity has recently
been on the agenda. Presently, ONCAT is working with MTCU on the development of a
comprehensive Credit Transfer Accountability Framework for Ontario. Implementation of the
long-term plan includes all institutions collecting credit transfer data as part of the regular
enrollment submission (College Statistical and Enrollment Reporting [CSER] and University
Statistical and Enrollment Reporting [USER]) (ONCAT, 2014a). In working towards this goal,
colleges and universities submitted Credit Transfer Availability Reports to ONCAT in 2011-
2012, which included:

- Total number of credit transfer students;
- Previous institution attended;
- Program admitted to at receiving institution;
- Previous program attended;
- Level of completion of previous program; and
- Total credits transferred.

These reports afforded a better understanding of credit transfer and the difficulties encountered
when maintaining and collecting data. One-time grants have been issued to institutions to build
the infrastructure required. Additionally, during 2013-2014 ONCAT has been coordinating a
pilot project with approximately ten institutions to construct data collection strategies, system
changes and information analysis. These preliminary insights will be based on approximately
40-50 percent of the total credit transfer population and will be used to refine credit transfer
indicators and the Accountability Framework. In its maturity, the Accountability Framework will include both a funding model and a set of performance indicators that will:

- Provide the mechanism through which: 1) system-wide goals and institutional participation and activities are set out and 2) results are reported;
- Link funding to measurable and auditable credit transfer activities;
- Enable public reporting on the progress to facilitate the movement of students through the postsecondary education system; and
- Allow the ministry to monitor and evaluate the success of the credit transfer system, conduct policy analysis and research; and to pursue continuous improvement in the design and implementation of the province’s credit transfer system (MTCU, 2013; ONCAT, 2014a).

A phased approach is planned and will eventually include data collection, research and analysis with centralized data systems and public reporting (MTCU, 2013).

To summarize, the economic concepts applied herein are exemplified in the literature on college choice and admissions, and current performance reporting and funding mechanisms within the province. Specifically, two factors contribute to students’ and administrators’ transfer literacy. The first factor is the extent to which symmetries and asymmetries of information exist in the transfer credit system: areas where shared (or uniform) knowledge about the credit transfer process exist as well as shared (or uniform) confusion and areas where an incongruity of information resulting in non-uniform knowledge across relevant stakeholders. The second factor is how individuals respond to information when they are boundedly rational and how they benefit from libertarian/soft paternalism. The application of these economic concepts requires an understanding that nudging mechanisms can only operate effectively if efforts are also made to
reduce information asymmetry. Mature transfer systems typically consider both the quality and accessibility of information, as well as stakeholders’ cognitive and behavioural limitations related to the processing of information. In order for the credit transfer information system in Ontario to develop, these considerations will need to come to fruition.
Chapter 4
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 the Government of Ontario, 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 the provincial 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 the Government of Ontario’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-Ontario (CFS) 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 10 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)

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). While 17 institutions were originally recruited to participate in this
research, four were unable to do so due to staffing issues and involvement in additional credit
transfer studies. The limited number of staff that would be present to manage credit transfer
offices for the duration of the focus group(s) was a concern that was voiced. Application rates
were calculated using OUAC transfer application data from 2008, 2009 and 2010. The OUAC
application data was averaged over the three years to account for spikes or drops in any given
year. 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). It is important to note that this portfolio’s location varies across institutions, academic vs. student affairs/services, and as such inquiries were conducted prior to sending each letter to determine the appropriate contact. Individuals in this senior role were contacted, as they strategically serve two functions: 1) they are able to provide the institutional sign off required by each institution’s research ethics board which is required prior to participant recruitment, and 2) in their unique position they can identify potential participants (credit transfer personnel). Research ethics board approval was sought at all 13 institutions involved in this study and was unanimously received.

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 assessment varied at each institution. A 'letter of invitation to participate' authored by the investigator (see Appendix D) 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 (see Table 3).
<table>
<thead>
<tr>
<th>Participants’ Functional Areas</th>
<th>Positions</th>
<th>Number of Participants</th>
<th>Time in Position (Average)</th>
<th>Hours Advising Credit Transfer Students/Week (Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Advisor/Coordinator/Associate Vice President/Assistant Director/Dean</td>
<td>24</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>Department/Program</td>
<td>Manager/Chair/Coordinator/Associate Dean/Dean/Lecturer</td>
<td>22</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Credit Transfer/Pathways</td>
<td>Assessor/Consultant/Coordinator/Specialist/Manager/Officer/Clerk</td>
<td>12</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Registrar</td>
<td>Assistant Registrar/ Associate Registrar/Analyst</td>
<td>14</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Admissions</td>
<td>Assessor/Advisor/Liaison Officer/Manager/Associate Director/Assistant Director/Director/Counsellor</td>
<td>14</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Recruitment</td>
<td>Assistant/Officer/Manager/Advisor</td>
<td>6</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Student Services/Success/Life</td>
<td>Counsellor/Consultant/Specialist/Advisor/Director/Officer</td>
<td>14</td>
<td>7</td>
<td>17</td>
</tr>
</tbody>
</table>
All were involved in advising credit transfer students and/or evaluating credit at the undergraduate level. Therefore, all observations and themes identified pertain to this subset of postsecondary students. On average, participants were in their current position for approximately 6-19 years and reported advising credit transfer students 5-20 hours per week during peak periods (prior to and at the beginning of each semester [September, January and May] dependent on credit transfer application deadlines). Departmental and program participants were recruited from those disciplines that the senior academic or student affairs/services officer identified as advising and evaluating the majority of transfer credit on campus. The following disciplines are represented: Business, Computer Science, Engineering, Media Studies and Information Technology, Liberal Arts and Sciences, Health and Early Childhood Education.

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. The focus group protocol was composed of the following components (see Appendix F):

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.

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3 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 was used as an interview protocol in these circumstances.
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 assessment, 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).

To summarize, a qualitative methodology was employed, which included a review of over 70 documents representative of credit transfer deliberations in the province from 1999-2012, and focus groups with institutional administrators involved in the advisement of students and
evaluation of transfer credit. Overall, 110 senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty and staff across 13 Ontario postsecondary institutions participated. Transcription, open and axial coding techniques, and member checking were employed when analyzing and validating data.
Chapter 5
Results: I. Documentation of Information Needs and Responsibilities

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 transfer process which affect students’ facility to transfer and institutions’ ability to advise and 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; and

The results of this research are discussed accordingly in the following three chapters. The themes identified throughout the NVivo 10 coding process for both the document analysis and focus groups are presented (see Appendix H and Appendix I, respectively, for a listing of nodes, sub-nodes and definitions).

First, 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 the Government of Ontario, agencies and institutions view as being necessary to navigate the transfer system.
Figure 3 illustrates the nine elements that were most frequently identified from the document analysis and focus group sessions.

**Figure 3 | Definitional Elements of Transfer Literacy**

<table>
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<th>Literature and Publicity</th>
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**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, assessment and enrollment process, students may experience difficulty navigating the transfer system and making informed choices.
Those tasked with developing and defining the terminology utilized within the Ontario credit transfer information system, influence the efficiency of the system and students’ comprehension. This terminology is evidenced in the Government of Ontario’s, agencies’ and institutional administrators’ publications, reports, policies and charters and proved, at times, to be distinctly Ontarian. The analysis revealed the need for an exercise in lexicography for those stakeholders within the transfer system.

The document analysis revealed a number of transfer types and categories. While the most prominent transfer models 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.’

One of the main themes that arose was the continual progression of the classification of transfer types from 1999-2012. This distinctly Ontario progression occurred in two ways: 1) the tightening of transfer type definitions and reclassification; and 2) mergers of transfer types. First, as the CUCC made changes to the Ontario College University Transfer Guide (OCUTG) there have come refinements in the definitions and classifications of the types of transfer available to students. For example, with the revision of the OCUTG in 2001, a stricter interpretation of what constitutes an official agreement came into place. This definition now classified ‘Direct Entry Programs’ offered by a number of universities as a new category of arrangement on the OCUTG. The new category of agreement made an addition to the transfer guide in the form of adding the admissions policies of a number of Ontario universities that give advanced standing via block credit to Ontario college graduates. In these cases, credit is given not through formal articulation
agreements, but as an admission policy related to a particular university faculty. A second example highlights the merging of types of agreements that has occurred over time as the Ontario credit transfer system has developed. In 2005, the CUCC announced that the number of ‘Consecutive’ agreements would change when those that were college-to-university became ‘Degree-completion’ under a revised definition. The ‘Consecutive’ agreements that were university-to-college were reviewed for re-classification.

The combined number of models and re-classifications revealed during the document analysis was corroborated and cited as a source of confusion during the focus group sessions. Administrators voiced questions they and their students have regarding the minor distinctions between models and the operational logistics that govern each.

In addition, it is important to note that determining the meaning and use of the word ‘transfer’ in the Ontario context yielded a number of commonalities and a few subtle distinctions. The document analysis mirrored in many ways the process of composing the first edition of the Oxford English Dictionary. Leafing through slips of paper containing the term, its context, usage and various connotations as quoted in documents over time to conceive of an overall definition (Winchester, 2004). While some differences in definitions are obvious, occasionally the differences contain the merest shadings of meaning (Winchester, 2003). In analyzing the term ‘transfer’ and its counterparts—‘articulation’, ‘seamless’, ‘student mobility’ and ‘affinity’—it became evident that while common elements of each term present themselves from 1999-2012, there also exist shadings of meaning that require deeper analysis.

The use of the term ‘transfer’ in Ontario has overlapping clear commonalities and blurry subtleties that remain on the periphery of the overall understanding of the term. The movement of students from college-university was the most common object of the definition provided in the
documents analyzed, followed by a limited discussion of university-college transfer. Transfer is
described in these documents as a new opportunity for students’ “seeking alternatives to
traditional postsecondary programs … to combine the benefits of a college education and a
university education” (COU, 2004, p. 20). In engaging in transfer activities institutions are
willing to exchange credit from the colleges to be applied toward a subsequent university degree.
The rationale for engaging in such activity was discussed as being linked to assisting students in:

- Recognition for prior learning;
- Avoiding unnecessary content duplication/repetition;
- Providing equitable assessment;
- Upholding academic integrity; and
- Combining the knowledge and skills that both college and university credentials offer.

For institutions transfer is discussed as an opportunity to partner in the delivery of educational
offerings “with shared administration, space, programs, and courses” (CUCC, 2002b, p. 13).
Transfer is seen as embodying both formal and informal linkages between institutions that share
similar programs and curriculum. Formal linkages were stressed as being the suggested option
for institutions to partake in. It was stated overwhelming that the success of agreements between
institutions occurs in areas of high affinity.

Slight divisions were also existent in the use of the term ‘transfer’. ‘Transfer’ was used to refer
both to students having graduated from college programs applying for credit transfer and to those
applying prior to graduation. While most documents referred to transfer students as those having
graduated, there were a few that challenged this notion or used student graduation status
interchangeably.
Additionally, the use of the terms ‘articulation’, ‘seamless’ and ‘affinity’ were never defined, but often referred to as targets to be reached between students’ diploma and degree studies. The use of these terms throughout the documents reviewed reveals various degrees of ‘articulation’ occurring in the Ontario context and various connotations of the words ‘seamless’ and ‘affinity’. In particular, the word ‘affinity’ was used most commonly to refer to articulated programs in similar curricular areas occurring on a bilateral, multilateral and cross-disciplinary basis. However, the term was also used to refer to institutional affinity and alignment. Institutional affinity was discussed in terms of values around trust and respect, building on institutional strengths, student focus, financial arrangements, scale of enrollments, and distinctiveness in academic programs. Last, inferences to affinity were evident in discussions of the location of institutions physically to one another as motivation for credit transfer partnerships. Such variations in the terms listed above will be analyzed in more detail in the final document analysis report.

The Government of Ontario, 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. During the focus groups, 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” (University Administrator). The need for “consistent terminologies (University Administrator)” and the “use of language for clarity versus jargon” (University Administrator) was found to be essential.
Moreover, it was clearly communicated that students moving from a college to a university “have to learn a new kind of language; they have to become literate in our [universities’] systems, structures, codes and terms” (University Administrator). Once students have learned the language used within the college sector they also must learn the language of the universities. The language used to describe the credit transfer process is of key importance for students, as “vocabulary allows them to deal with challenges” (University Faculty). 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.

Participants stated that consistency is pertinent to “everyone speaking the same language” (College Administrator) and is the responsibility of everyone. Institutional administrators admitted to using terms fairly loosely when advising students in part due to local dialects and a system in flux. 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. A conscious effort is being made to use the terminology outlined by ONCAT in daily interactions with students. Recent developments provincially and nationally have been encouraging: the restructured ONCAT glossary of terms and the Pan-Canadian Consortium on Admissions and Transfer (PCCAT) and Association of Registrars of the Universities and Colleges of Canada (ARUCC) Transcript and Transfer Credit Nomenclature Study speak to the commitment to establish and expand common language for credit transfer.
Similarly, 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 assessment 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” (College Faculty). 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” (University Administrator).

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” (University Administrator).
- “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” (College Faculty).

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” (College Administrator). 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” (University Administrator)? 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)” (University Administrator). “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” (College Administrator).

- **Transfer Booklets/Guides**- “University wide transfer booklets with general, not complicated, guidelines for programs” (University Administrator). “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” (College Administrator).

- **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” (College Faculty).
Familiarity with existing locations and 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” (University Administrator). 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, division and 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 and both among and within 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 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, 2002a, 2003, 2004, 2005, 2006, 2007, 2008a, 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 (University Administrator).

Students must understand the information garnered from their advising appointments and be able to act upon that information. Administrators stated that 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. Not all students 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” (University Administrator).
- “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” (College Administrator)?

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” (University Administrator). 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 GPAs. Administrators discussed the latter in detail explaining that for some students, “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” (University Administrator). There is a reason for this perception another commented,

    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 (University Administrator).

The assessment of credits and resulting implications can be baffling. The documents reviewed frequently discussed: considerations regarding 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 assistance, and time to graduation) (ACAAO, 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 determinant 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” (University Administrator). Participants commented that students must recognize they are in competition with high school applicants, international applicants and other 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’” (College Administrator)? Moreover, “submitting the appropriate documentation” (University Administrator) 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’” (College Faculty).

- *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” (University Administrator).

- *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” (College Faculty).

- *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” (University Faculty).

- *Credit Review, Assessment 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” (College Administrator).
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” (University Administrator). 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 (University Administrator).

Participants discussed the need for improved targeted circulation of new procedures and improved information sharing between divisions and 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 (College Faculty).

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” (College Administrator).
Students’ ability to make informed decisions regarding program choice, future graduate education and career goals is the ultimate measure of literacy.

To summarize, stakeholders identified several elements of transfer literacy necessary for students’ comprehension of credit transfer processes and outcomes:

- Conception of credit transfer terminology used by universities if students wish to effectively search for information and ask pertinent questions;
- Identification of sites where information is housed responsibility for locating this information;
- Determination of when advisement is needed and application of information received from appointments;
- Recognition that credit transfer is a competitive and multistage process with unique demands at each juncture (admission, competition for seats, submission of all required documentation, and follow-up advising appointments); and
- Formation of informed decisions regarding program choice, future graduate education and career goals.
Chapter 6
Results: 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 affect students’ facility to transfer and institutions’ ability to advise and accommodate transfer students was conducted. \textit{Symmetry} refers to a congruity in credit transfer information between stakeholders. This includes \textit{shared} (or uniform) knowledge about the credit transfer process as well as \textit{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 or incorrect), and they hold common beliefs/expectations about future outcomes. In contrast, \textit{asymmetry} refers to an incongruity in information resulting in non-uniform knowledge across relevant stakeholders. In this case, some stakeholder(s) would \textit{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 of Ontario/agencies and institutional administrators and 2) institutional administrators and students. In addition, throughout this analysis (a)symmetries among institutional administrators themselves are outlined, where applicable.

Government of Ontario/Agencies and Institutional Administrators

In Phase I, a document analysis of the provincial 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 agencies and institutional administrators.

Symmetries

This section details areas of the transfer process where shared information exists between the Government of Ontario/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 CMEC
Working Group on Credit Transfer (2010) 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 assessments 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 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. The Government of Ontario 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’s degree;
• Georgian College’s University Partnership Centre, 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; and
• Durham College and the University of Ontario Institute of Technology, 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 provincial policy have led to the creation of numerous partnerships over time: 1) full funding for incremental undergraduate enrollments (universities receive revenues to assist with the costs of serving additional college transfers) and 2) a portion of the Government of Ontario SuperBuild funding devoted to joint college-university initiatives (COU, 2004).

College-University relations are currently beginning to expand once again and the Government of Ontario, agencies and institutional 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 the need to expand to multilateral agreements has become a well-defined ambition. The Policy Statement for Ontario’s Credit Transfer System (MTCU, 2011b) states that one of the priorities of improving student pathways is to increase student choice by making new agreements multilateral, between multiple sending and receiving institutions, and by revising existing bilateral agreements, between one
college and one university. Multilateral agreements are described in this document as including multiple partners, college system-wide, regional or language based pathways (2011b).

**Asymmetries**

Asymmetries were identified in areas where institutional administrators would directly benefit from additional information about the credit transfer process from the Government of Ontario/agencies and vice versa. While the examples provided do not represent an exhaustive list, they do showcase key examples where institutional administrators have or desire more information.

University administrators stated that centralized databases containing credit equivalencies assist in providing consistent and objective credit assessments. 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 assessment 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 the Government of Ontario 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. Institutional administrators also emphasized that centralized databases are “one step of a two-step process when reviewing credits” (College
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 and degree planning tools. Institutional 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 assessment results, viewing of academic history and degree planning in consideration of awarded credit. Nonetheless, institutional administrators discussed that, although the provincial government has provided financial support to facilitate this transition, there has not been leadership with regard to ensuring that 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, institutional administrators discussed institutional 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” (University Administrator). 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. As students move between institutions via bilateral and multilateral agreements it is just as imperative that the administrative systems in place are aligned as it is that the pathways themselves are in place. Administrators discussed the desire to learn from their colleagues about methods and strategies used for data collection, database construction/expansion, management system and degree planning tool development, and policy improvement. Encouragingly, the Government of Ontario and agencies have begun working on a number of the items institutional 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 F). 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 eight overarching areas that contain symmetries of information: 1) Program Choice, 2) Residency Requirements, 3) Articulation Agreements, 4) Applied Bachelor Degrees, 5) Advising Practices (Internal and External), 6) Terminology, 7) Information Location/Relevance and 8) GPA Calculation.

Identified areas where shared clarity and confusion exist are shown in the spider graph below (clarity-left; confusion-right) (see Figure 4). The spider graph depicts the percentage of colleges
and universities involved in the study that identified each area. For example, 83 percent of colleges and 86 percent of universities involved in the study identified Articulation Agreements as an area where shared information clarity exists between institutional administrators and students. On the other hand, 100 percent of colleges and only 57 percent of universities involved in the study identified Applied Bachelor Degrees as an area where shared information confusion exists between institutional administrators and students.

Figure 4 | Informational Symmetries- Comparison Colleges and Universities

A comparison of college and university data reveals that Articulation Agreements, Residency Requirements and Program Choice were listed by college and university participants as areas where shared information clarity exists. Conversely, Applied Bachelor Degrees, Terminology, Information Location/Relevance, and GPA Calculation were listed more frequently as areas
where shared information confusion exists by college participants than university. The particular items that lie within a few of these frequently listed areas and the corresponding supporting evidence are outlined herein.

**Articulation Agreements.** Several colleges and universities involved in the study identified *Articulation Agreements* as an area where shared information clarity exists. However, this particular area was distinctive in that it also contained a margin of shared information confusion. Two themes emerged within this area (see Table 4).

Table 4 | *Themes: Articulation Agreements*

<table>
<thead>
<tr>
<th>AWARENESS &amp; MAXIMUM CREDIT</th>
<th>Awareness of articulation agreements and the benefits attributed to them are well known and as a result competition exists for places within these programs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSISTENT STRUCTURE</td>
<td>Articulation agreements posted on institutional websites do not adhere to a standard format, utilize common language or include the same terms. Rather the format and terminology reflects the partnering institution’s expressions, which contain variation and can be difficult to apply.</td>
</tr>
</tbody>
</table>

**Awareness and Maximum Credit.** Articulation agreements were identified as a 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” (College Faculty). Others commented, “Students know we have agreements, that there are agreements and with which institutions” (College Faculty). Articulation agreements were cited as
the pathway of choice for many students when planning their education: “The vast majority of students [who are interested in transferring] are hoping to get into a university program with which we have an agreement, to get their undergraduate degree” (College Administrator).

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. Articulation agreements represent an approved pathway with many benefits faculty state:

Articulation agreements are honestly the best option for students because we’ve worked out all of the specifics in advance, and there needs to be more of them. It’s a commitment that works in favor of the student because when transfer is sought course-to-course students usually don’t get many transfer credits.

**Consistent Structure.** All the same, institutional 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. One administrator explained:

We undertook an exercise this year based on feedback that we received at recruiting, that the articulation agreements reflect different language. That’s because they’re all established with the partnering university and they all have their own terms. They even have their own grading schemes, GPAs, they all vary (College Administrator).
It is also important to note the coping strategies that administrators utilize when experiencing confusion regarding the details contained in an articulation agreement when advising students. A few commented that they have located an individual(s) at partnering institutions who are familiar with the agreements in question and they keep their number on file:

   It is really difficult to advise at times as I may have several questions, for example comparing two available articulation agreements. Through my own little research, I have two people, contacts, and they’re like gold to me. And they’re just people I found in my own little way and they’re willing to talk to me and the student (College Administrator).

When these contacts or relationships are not in place, clarifications around articulation terminology and terms can be difficult to locate:

   At some partner schools we have really good relationships with so it’s easy for us to get answers from them because the relationship is there, but I find that if that partnership isn’t overly strong, we can face the same run around as students trying to track down information and not getting what they need from it. I think the experience is the same both from the student and the staff perspective.

Another strategy listed by administrators when uncertain of the conditions outlined in an articulation agreement is to work together with the student to come to a consensus. For example, one administrator described reading line-by-line through an agreement and researching unclear terms as they arose to arrive at an understanding. This administrator stated: “The biggest problem that we have in counseling is every university is different, you can’t count on a single system. So we usually go to the website and research the articulation terms and policies governing the agreement together. We explore and look for links etc.” (College Administrator).
Institutional administrators and students share a fair amount of information when it comes to credit transfer. This information can contain items of clarity and of confusion, where additional information is required. Particular items of shared confusion between administrators and students are presented in Table 5.

Table 5 | *Informational Symmetries between Administrators and Students*

<table>
<thead>
<tr>
<th>University</th>
<th>College &amp; University</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timing and Method of Transfer Credit Assessment</strong></td>
<td></td>
</tr>
<tr>
<td>- Pre or post admissions</td>
<td></td>
</tr>
<tr>
<td>- Automatically assessed or application required</td>
<td></td>
</tr>
<tr>
<td><strong>College</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Information Location/Relevance</strong></td>
<td></td>
</tr>
<tr>
<td>- Tracking down information and wait times at universities</td>
<td></td>
</tr>
<tr>
<td>- Data sharing between institutions and professional associations</td>
<td></td>
</tr>
<tr>
<td>- Contact information for established articulation agreements</td>
<td></td>
</tr>
<tr>
<td><strong>GPA Calculation</strong></td>
<td></td>
</tr>
<tr>
<td>- Varying GPA formulas (program versus cumulative, permitted course repeats)</td>
<td></td>
</tr>
<tr>
<td><strong>Applicant Pool</strong></td>
<td></td>
</tr>
<tr>
<td>- Quota of reserved seats for college transfers</td>
<td></td>
</tr>
<tr>
<td><strong>Applied Bachelor Degrees</strong></td>
<td></td>
</tr>
<tr>
<td>- Assessment of credit when transferring from an applied bachelor’s degree to university</td>
<td></td>
</tr>
<tr>
<td>- Role of college degrees in applied areas of study</td>
<td></td>
</tr>
<tr>
<td><strong>Advising Practices</strong></td>
<td></td>
</tr>
<tr>
<td>- Communication lines between colleges and universities</td>
<td></td>
</tr>
<tr>
<td>- Multi-campus distinctions in policies and procedures</td>
<td></td>
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<tr>
<td>- High school guidance counsellors’ advisement practices regarding pathways</td>
<td></td>
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<tr>
<td><strong>Terminology</strong></td>
<td></td>
</tr>
<tr>
<td>- Articulation agreements (varying terms and language)</td>
<td></td>
</tr>
<tr>
<td>- Credit value/hours (full versus half credits etc.)</td>
<td></td>
</tr>
<tr>
<td>- System-wide standard nomenclature</td>
<td></td>
</tr>
<tr>
<td><strong>Information Location/Relevance</strong></td>
<td></td>
</tr>
<tr>
<td>- Internal contact information and resource sharing</td>
<td></td>
</tr>
<tr>
<td>- Publishing and updating transfer agreements internally (web)</td>
<td></td>
</tr>
<tr>
<td>- Setting research priorities (credit transfer activity/outcomes/(dis)advantages)</td>
<td></td>
</tr>
<tr>
<td>- Consistency of information and level of guidance provided</td>
<td></td>
</tr>
<tr>
<td>- Ease of access to information</td>
<td></td>
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<tr>
<td>- ONCAT Portal</td>
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</tbody>
</table>

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.
Identified Applied Bachelor Degrees as an area where shared information confusion exists. One central theme emerged within this area (see Table 6).

Table 6 | Themes: Applied Bachelor Degrees

| Degree Value/Evaluation | The purpose of an applied bachelor’s degree and corresponding credit assessment when utilized as a pathway requires system-wide comprehension and collaboration. |

**Degree Value/Evaluation.** Applied bachelor degrees were identified as a 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” (University Administrator)? 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’” (University Administrator)? 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. Colleges offering Business degrees is receiving some backlash” (College Administrator).

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 deans that if we have articulation agreements … college-to-university that we might be cannibalizing our own degrees” (College Administrator).

**GPA Calculation.** The majority of colleges involved in the study identified *GPA Calculation* as an area where shared information confusion exists. University administrators weighed in on why this problem persists. Two themes emerged within this area (see Table 7).

Table 7 | *Themes: GPA Calculation*

<table>
<thead>
<tr>
<th>ADMISSIONS CUT-OFF AVERAGES</th>
<th><em>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.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADING SCALES</td>
<td><em>Varied grading scales and regulations across universities make it difficult for college administrators and students attempting to predict GPA calculations/conversions.</em></td>
</tr>
</tbody>
</table>

**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’” (College Administrator)? 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 (University Administrator).

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” (College Administrator). Students must obtain at least the minimum GPA and often they will require grades above that which is stated.

**Grading Scales.** A number of grading scales are in place across Ontario universities. These systems can be confusing for college advisors/counsellors, faculty and students trying to predict how an average will be calculated and interpreted 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 confusion exists, stating, “I think sometimes there is a struggle with the GPA notion. We [colleges] deal with letter grades whereas the university will have numeric grades” (College Faculty). 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 concern,
We 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 (College Administrator)?

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” (University Administrator).

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.

**Asymmetries**

Asymmetries were identified in areas where students would directly benefit from additional information about the credit transfer process from institutional administrators or the Government of Ontario/agencies. Participants identified seven overarching areas that contain asymmetries of information: 1) *Credit Transfer Assessments (Advanced Standing, Direct Entry, Equivalencies etc.)*, 2) *Application Process and Required Documentation*, 3) *Financial Aid and Costing*, 4) *Credit Transfer Portfolio (Location, Unit[s] and Personnel Involved)*, 5) *Reach Backs*, 6) *Degree and Program Requirements*, and 7) *Variations in Structure (Institutional Policies and Procedures)* (see Figure 5). As above, 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 *Credit Transfer Assessments* 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 Financial Aid and Costing as an area where confusion exists for students.

Figure 5 | 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 and Financial Aid and Costing 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 herein.
Credit Transfer Assessments. All colleges and universities involved in the study identified Credit Transfer Assessments as an area where confusion exists for students. Several themes emerged within this area (see Table 8).

Table 8 | Themes: Credit Transfer Assessments

| PROGRAM AFFINITY, EQUIVALENCIES & RECOGNITION | Students express frustration over their attempts to determine the amount of transfer credit they will receive upon applying to university. |
| ADVANCED STANDING | Students require clarification with regard to the concept of advanced standing and the accompanying conditions. |
| RE-ASSESSMENTS | Degree and faculty changes made by students throughout the course of their education may require transfer credit re-assessment, additional advising and a reconfiguration of program plans. |

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 assessments, 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” (College Administrator).

- “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’” (University Administrator)?

Students tend 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 inquire:

“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 (University Administrator).
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” (University Faculty).

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” (College Faculty).
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” (University Administrator). 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” (University
Administrator). 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” (University Administrator).
**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” (University Administrator).

- “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’” (University Administrator).

Generally, *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 or applying to a variety of institutions must keep track of these differences, ultimately learning to speak several ‘transfer dialects.’ With regard to credit assessment, 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 Administrator).

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 assessments.

**Re-Assessments.** Students must be aware of universities’ methods and sequences for conducting transfer credit assessments. If the credit assessment is program based, students may require a re-assessment 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” (University Administrator). 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” (University Administrator). Full versus program based assessments varied among the institutions in this research study. Advantages of a program based assessment are that they can be completed in short time frames and are tailored to a student’s current program of study. Students are able to determine how each credit will be utilized towards program and degree requirements as only those applicable have been evaluated. Disadvantages are that if a student switches majors or declares a minor, they will want to request a re-assessment. At some institutions an internal transfer is not associated with an automatic re-assessment but rather the student must request this action be performed for their benefit. This particular situation requires a knowledge of the inner workings of an institution, a literacy of the policies and procedures at their university and the resulting implications. Full assessments
therefore have the benefit of providing students with all of the credits they will receive, regardless of program, based on their previous postsecondary education. Students can initiate an internal transfer, undertake a double major, or declare a minor without having to request a re-assessment. The disadvantages are that administrators report that students may be confused as to why they have been awarded additional credits that may not be utilized for their current program. However, this information provides students with the opportunity to make informed decisions when switching majors etc. as all evaluated credits and totals are available to them.

Given the implications of these particular assessment methods, some institutions have engaged in experimentation. 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 (University Administrator).

The advantages and disadvantages of potential assessment methods must be weighed when setting institutional policies and procedures. Some universities in the research study reported not utilizing either of the assessment methods described above (automatic forms of credit assessment provided upon admission) but instead require students to manually request credit transfer.

Application Process and Required Documentation/Financial Aid and Costing. All colleges involved in the study identified Application Process and Required Documentation/Financial Aid and Costing as an area where confusion exists for students. Several colleges and universities identified Financial Aid and Costing. Three themes emerged within these areas (see Table 9).
Table 9 | Themes: Application Process and Required Documentation/Financial Aid and Costing

| ENROLLMENT & FOLLOW-UP | Credit transfer students experience a multifaceted enrollment process (admissions applications, submission of documentation for transfer credits, and follow-up advising). |
| SUPPLEMENTAL FEES | While bilateral transfer may be promoted as a cost savings mechanism for students pursuing a bachelor’s degree, there are a number of supplemental fees that must be considered and planned for accordingly. |
| PART-TIME/FULL-TIME DISTINCTIONS | Students generally desire as much credit as possible when transferring; however, the amount of credit requested and awarded should be done with part-time and full-time status requirements in mind. |

**Enrollment and Follow-Up.** The enrollment 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” (University Administrator). 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” (College Administrator). “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” (College Faculty).

- **OUAC 105**- “Teaching students the terms to use in their Google and university searches and letting them know that they’ll be an OUAC 105 applicant when they go to apply, these are things that they don’t know …. ” (College Administrator). “I literally keep a paper OUAC 105 application on my desk and it’s very helpful because of course it replicates what’s online. I created an application for myself so that I can reference it and answer students’ questions as we go through it together” (College Administrator).

- **Documentation**- “The submission of previous transcripts is confusing for students alongside how credit is assessed” (University Administrator). “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” (College Faculty).

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” (University Administrator). If students do not possess the correct contact(s) they may receive incomplete or incorrect information.

Similarly, students themselves must be willing to provide complete information about their previous postsecondary education upon transferring. Students are required to report this information on the OUAC 105 application and in the form of transcript(s) and supporting
documentation to the university. The OUAC 105 application form may require some further education advisors stated. While students may be familiar with the general structure and purpose of the form, having previously filled out an Ontario College Application Service (OCAS) application, for admission to college, they have not been asked to report previous postsecondary education before. Moreover, they have not been asked to self-assess their year or level of study in order for the receiving institution to make a judgment about their admissions status. The OUAC 105 application asks students to provide a year code (first year or advanced standing)\(^4\). While at first mention this does not seem like a complicated task, a single definition for terms such as ‘advanced standing’ is not synonymous across the system. Administrators stated that they receive numerous questions from students regarding which option to select on the application in order to be considered favourably. Additional questions focus on the timing of the OUAC applications, time to program completion, conditional offers based on interim grades with final grade deadlines, and the reporting all previous postsecondary education impact on admission and awarded credit.

Declaring all previous postsecondary education and providing the correct supporting documentation is important when transferring to university; a proper credit assessment (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,

\(^4\) Corroborating these findings, a working group was convened in 2013 to review nomenclature utilized in the OUAC 105 application and the terms ‘year code’ and ‘advanced standing’ were modified to read ‘year level’ and ‘upper year’, respectively.
keep this for the next 25 years. You don't know when you're going to need it” (College Administrator). 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” (College Administrator). 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. In addition to supporting documentation, students must also remember the importance of the financial costs associated with transferring.

**Supplemental Fees and Part-Time/Full-Time Distinctions.** The financial costs associated with transferring credit vary by institution and program. Transfer students typically incur supplemental 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 as four transcripts. That’s a lot” (College Administrator). While some institutions have an omnibus fee, others charge separately for each transcript. Further, some institutions have a transfer credit assessment fee that students must pay in order to have their previous education assessed upon admission.

Several more detailed considerations for transfer students were also raised regarding financial assistance and costs:

1) Joint/integrated or collaborative programs may require students be enrolled at the college and university concurrently for a portion of their program. This dual status can force students into a situation where their coursework at one institution is not eligible for the
Ontario Student Assistance Program (OSAP). Administrators stated that in these cases they have been working with OSAP on a resolution.

2) Articulation agreements may require a bridging semester which will require students to pay additional costs that may not have been projected when considering a two-plus-two arrangement.

3) Professionally accredited programs may require college students to register and file applications to transfer credits both with the receiving university and professional association. Applicable assessment fees, transcripts etc. are charged by both (ex. Chartered Professional Accountants [CPA]).

Further, students must be aware of the implications of receiving an abundance of transfer credit and how it will affect their tuition amount, fee schedule and OSAP eligibility. Administrators clarified that students often want to secure all credits they are eligible for but in doing so are often not aware that if the amount of credit received in a given semester drops them to part-time status their tuition amount, fee schedule and eligibility for funding may change. While some universities provide a tuition rebate when a course load reduction is experienced as a result of transfer credit, others have a flat tuition rate. Part-time students, who pay tuition per course, will experience financial savings; whereas, those who pay flat tuition may be surprised to learn this will not occur. Similarly, fee schedules and payment regulations that must be adhered to may vary based on enrollment status. Last, students are eligible for different levels of support according to part-time and full-time status when applying for OSAP. Students may be eligible to receive a substantial amount of transfer credit but may not wish to apply or accept all that is provided to them if given the option.
Last, beyond fee schedules and regulations, administrators commented that scholarship and bursary availability for transfer students differs compared to those entering from high school. One administrator stated, “I think a lot of them make assumptions in the early stages that they qualify for every entrance scholarship as a transfer student, and they don’t. That’s a big assumption” (University Administrator). However, others commented that universities are trying to improve their efforts to provide scholarships and bursaries to transfer students as a marketing mechanism:

The universities have now come to the realization that transfer students are a great way to target prospective students. A lot of them are now putting in place transfer scholarships and bursaries for students. I know that on our degree transfer website we are dedicating a page to showcasing the scholarships and bursaries which our students can access if they choose (College Administrator).

A few administrators discussed ensuring that financial assistance is discussed when creating all new partnerships.

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 10).

Application of Credit Assessment. 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” (University Administrator).
Table 10 | Themes: Degree and Program Requirements/Variations in Structure

<table>
<thead>
<tr>
<th>APPLICATION OF CREDIT ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Regardless of the program, it is important that students understand their transfer credit assessment and how it applies to both degree and program requirements.</td>
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<table>
<thead>
<tr>
<th>PROGRAM FLEXIBILITY</th>
</tr>
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<tbody>
<tr>
<td>▪ 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.</td>
</tr>
</tbody>
</table>

Participants named a few key concepts students must remember when viewing and acting upon their credit assessments:

- **Generic, Unallocated, Unassigned, Non-Specific 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” (University Administrator). “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” (University Administrator).

- **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” (University Faculty).

- **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’” (University Administrator).

“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” (University Administrator).

The role of generic, unallocated, unassigned, non-specific or unspecified credits was raised by several participants as an item students struggle with once they receive their credit assessments. 

*Generic, unallocated, unassigned, non-specific 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, *allocated, assigned, specific or specified* refers to credit given for a fully equivalent course in content and level of study. Generally, generic, unallocated, unassigned, non-specific 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” (University Faculty)?

Many stated that “the devil is in the details” (University Administrator) 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” (University Administrator).

Students may also be awarded generic, unallocated, unassigned, non-specific or unspecified credits with attached exclusion(s). In these cases, course exclusion(s) may be noted barring enrollment in similar course(s). Students are not able to enroll in courses listed as exclusions on their transfer credit assessment, 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” (University Administrator). 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” (University Faculty).

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 (University Administrator).

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.

To summarize, symmetries between the Government of Ontario/agencies and institutional administrators include shared knowledge about the frameworks and guiding principles for collaboration, admissions, and innovative articulation and transfer models. Asymmetries include credit review procedures for course-to-course transfer, development of electronic administrative management systems/degree planning tools, and institutional tracking of transfer students/student data via a comprehensive research agenda. In addition, institutional administrators identified several areas where symmetries and asymmetries exist between themselves and students.
Recognized symmetries include shared clarity about the availability and benefits of articulation agreements, program choice and residency requirements, as well as shared confusion about the purpose and assessment of applied bachelor degrees, advising practices, credit transfer terminology, information location/relevance, and variations in GPA scales and calculations. Asymmetries include students’ unawareness that program affinity, academic prerequisites and GPA all impact assessments. Students also 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 next section brings together the results—information that the Government of Ontario, agencies and institutions provide to students to proceed with college-to-university credit transfer and existent (a)symmetries in the current transfer information system. A discussion of the internal and external factors that impact on the performance of the system are presented.
Chapter 7
Discussion: III. Identification of Internal and External Factors that Impact on Performance

The results 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 and behavioural economics will guide this discussion. Contract theory assists in considering how students and administrators can make more informed decisions and respond to incentives by being provided with additional information or the correction of misinformation (areas where asymmetric information was identified). Behavioural economics assists in formulating improved mechanisms for the processing of available information and choice making. Since both are integral to the discussion of literacy, factors discussed within this section will be classified according to both factors.

Contract Theory: Effective Screening and Signalling?

As discussed in the theoretical framework section of this dissertation, adverse selection can be reduced or mitigated through the use of two mechanisms, screening and signalling. The response to situations where one stakeholder has information that the other stakeholder(s) lacks is to retrieve some or all of the information (Kreps, 2003). Institutions/administrators 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). An equilibrium may be achieved by employing:

- *Screening*, which refers to a situation where the uninformed stakeholder takes the initiative and offers the informed party a menu of choices and the choice from the menu
becomes the informative signal (screening is especially prevalent in cases where the uninformed stakeholder provides a service for the informed stakeholder); or

- **Signalling**, which refers to a situation where the informed stakeholder takes the initiative to provide the uninformed with selected information (Kreps, 2003).

Institutions/administrators employ screens when interacting with credit transfer students during the formation of contractual agreements in order to reduce or mitigate adverse selection. Where screens have not been established by the institution, students as the informed stakeholder may take the initiative to signal information about themselves as applicants. In order for administrators to learn about credit transfer applicants, students 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. Screens and signals are used simultaneously in most credit transfer applicant situations, with one key exception which will be delineated herein (see Figure 6).

**Figure 6 | Credit Transfer Screening and Signalling Model/Game**
This illustration reveals a characteristic screening and signalling model that occurs between students and academic institutions during the course of applying for admission and transfer credit. The process begins with institutions specifying their ‘screens’—baseline criteria that students must meet in order to be considered for transfer credit—typically including credentials or level of completed postsecondary, prerequisites, and minimum grades and averages among other academic requirements. If an articulation agreement exists, then students who apply for admission and meet the terms of the predetermined screen are effectively awarded credit, leading to an equilibrium that is an optimal (‘first-best’) outcome. This is a first-best equilibrium outcome, as the receiving institution is directly knowledgeable or informed of applicants’ previous postsecondary education, curricula, syllabi, textbooks, instructors, competency/outcomes profiles, grades and average. The arrangement and terms of the articulation agreement act as a screen. The alignment of curriculum and achievement standards has occurred with perfect information in mind, which mitigates the risk of the student being unsuccessful. Well-crafted articulation agreements are associated with student success at university. Generally, students in articulation agreements make better course selections, are familiar with academic expectations and content, achieve high grades, and have respectable graduation rates (CUCC, 2008b; Drewes, Maki, Lew, Willson, & Stringham, 2012; Falconetti, 2009; Stewart, 2012).

However, if an articulation agreement does not exist, then students who apply for admission and transfer credit are screened according to institutional policies governing admission and credit transfer. In addition, they take the initiative of strategically sending signals to universities so as to maximize their expected transfer credit success rate. In turn, the institutions will assess students’ applications and base decisions on the incomplete information available to them, leading to an equilibrium that may or may not be an optimal (‘second-best’) outcome. Notice that
it is theoretically possible for an outcome under incomplete information to mirror the first-best result, represented graphically by the fact that the outcome under the articulation agreement (or, more generally, under perfect information) falls within the set of possible outcomes that may arise under incomplete information. Yet the layer of inefficiency that the signalling process creates means that reaching the first-best scenario is unlikely in practice without proper coordination.

**Screening**

A solution to the problem of incomplete (asymmetric) information is articulation agreements. *Articulation agreements* refer to:

Two or more academic institutions identifying comparable coursework and degree requirements that can be met at one institution and transferred to another institution. During articulation, stakeholders from each institution conduct meetings among faculty and staff considering similarities in coursework, curricula, syllabi, textbooks and competency/outcomes profiles to ensure seamless transfer of credits to the partner institution. As the legal document of a partnership, the articulation agreement contains the final accords as agreed upon between the two institutions (Shoreline Community College, 2015, p.1).

The terms for screening are prearranged and if students meet the eligibility criteria (coursework, grades, minimum average, ‘good standing’ with professional associations etc.) they can apply for admission to the university with which the agreement is held with and automatically be awarded the assured credit.
Administrators stated that these articulation agreements provided students with the largest guaranteed amount of credit since expectations, content and grading are transparent and predetermined. An internal factor that was raised with regard to the efficiency of this screening mechanism throughout this research was that those posted on institutional websites do not adhere to a standard format, utilize common language or include the same terms. Rather, the format and terminology reflects the partnering institution’s expressions, which contain variation and can be difficult to apply. Taking initiatives to ensure that the posting of agreements follows a set structure on institutional websites when posted individually across departments and divisions is crucial. Further, having a central location where all agreements a college has in place are posted, Admissions or Office of the Registrar’s website, in addition to each division and department would be helpful for advisors. Common language and use of the same terms or academic regulations (ex. grading scales, GPA calculations, credit values/weight, admissions application etc.) within the agreements themselves is rooted in an all-encompassing system-wide factor which will be addressed in the discussion that follows.

Students not participating in an articulation encounter the following three screens employed by institutions:

- Credential or level of completed postsecondary (minimum number of semesters or years in a diploma, advanced diploma or applied degree) and prerequisite program requirements.
- Minimum admissions average and prerequisite average depending on the program (minimum cut-off ranges).
- Minimum grade or average required to transfer a course(s) from a college diploma, advanced diploma or degree level program.
Universities screen applicants based on this information collected from students in order to provide a sufficient offer of admission and credit transfer assessment. However, despite initiating this request for information, university admissions officers may not know a transfer student’s true skill set or qualifications if he/she does not reveal personal (private) information in his/her admissions application or subsequently in his/her credit transfer application(s).

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 stakeholder in a possible transaction. In the credit transfer information system, this research study suggests that there are situations where students and institutions/administrators withhold, fail to reveal, or are unable to fully disseminate private information during the credit transfer process.

Private Information. Throughout the research study, participants described circumstances where students may not reveal their true skills and qualifications. The first internal 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” (University Administrator). If students previously attended other institutions, advisors/counsellors require a record of that information: previous enrollment at a college or university should be automatically disclosed. This may include records of student enrollment provincially, nationally and/or internationally.
The OEN should reduce the administrative demands connected with the collection and reporting of data (Ontario Ministry of Education [OME], 2013). ONCAT, in collaboration with its members, MTCU and HEQCO, are currently considering how the newly collected OEN-related data will be used and are developing promising practices for its analysis (ONCAT, 2014a).

Currently, students may choose to purposefully keep previous education 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.

College administrators also discussed situations where universities withhold, fail to reveal, or are unable to fully disseminate information that would be valuable when advising students. Within the new credit transfer framework, participants identified applied bachelor degrees, grading scales and GPA calculations/conversions as internal factors requiring improvement. Advising students about credential and minimum average screening mechanisms is difficult when the required information is not clearly outlined and/or available.

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. The role of applied bachelor degrees in the current credentialing system in Ontario is largely debated. Administrators debate the purpose of these degrees, distinctness from bachelor degrees, rigour of the skills and content taught, approximate student enrollment numbers, and assessment methods for transfer credit. 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” (University Administrator). 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” (College Administrator). 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 polices may vary by institution and program, students should be provided with this full information.

Another internal factor that was discussed throughout each of the focus group discussions was the lack of information with regard to GPA calculations/conversions and the weighting of courses/units across Ontario institutions. Varying grade point scales are in place across all Ontario universities (see Table 11).

Table 11 | *Ontario University Grade Point Scales*

<table>
<thead>
<tr>
<th>Point Scale</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0</td>
<td>University of Toronto (Arts &amp; Science)</td>
</tr>
<tr>
<td>4.3</td>
<td>Ryerson University, Queens University</td>
</tr>
<tr>
<td>9.0</td>
<td>York University</td>
</tr>
<tr>
<td>10.0</td>
<td>Ottawa University</td>
</tr>
<tr>
<td>12.0</td>
<td>Carleton University, Wilfred Laurier University, McMaster University</td>
</tr>
<tr>
<td>13.0</td>
<td>Windsor University</td>
</tr>
<tr>
<td>100%</td>
<td>Algoma University, Brock University, Guelph University, Western University, Waterloo University, Trent University, OCAD University, Laurentian University, Lakehead University, Nipissing University, Windsor University</td>
</tr>
</tbody>
</table>

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” (College Faculty).

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.

Practical solutions and simplification 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” (College Administrator). At the provincial level, some college advisors/counsellors discussed having collected all Ontario university grading scales and formulas 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).

Lastly, an exceptional situation arose where privacy of information was not a factor but, rather, unavailable information among stakeholders within the credit transfer information system presented itself. Admissions cut-off averages were presented as an area where the information
college advisors/counsellors and students desire is unavailable. University admissions cut-off averages are dependent on discipline, applicant pool, annual targets and funding. The shifting nature of admissions cut-offs, rising and falling each year, makes educating students about this screen difficult. Students generally desire a precise cut-off that will be enforced and at times tend to take this desire and internalize it by trying to meet the previous year’s cut-off for their program. College administrators state that the internal challenge is that the universities cannot feasibly commit and communicate this information, as it is decided and debated once applications are collected. Therefore, advisors/counsellors have developed a few strategies for advising students with regard to the minimum admissions and prerequisite average. Students are informed that the previous year’s cut-off should be viewed as the minimum GPA requirement and that they will likely require grades above that stated. Minimum requirements are enforced, as admissions is a competitive process for college transfers as well as high school students. Averages below that which are stated are unlikely to be accepted. In the context of the theoretical model of asymmetric information, GPA cut-offs are not private information held by any stakeholder group. However, an asymmetry may still arise in the sense that universities have more knowledge of the determinants of GPA cut-offs and, as a result, are in a better position to form an accurate prediction of what this value will eventually take. In other words, the asymmetry of information occurs in this situation in the belief formation process.

**Signalling**

In addition to screening mechanisms, students as the informed stakeholder take the initiative to signal information about themselves as applicants. 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. Students intending to transfer may enroll in a particular college program to ensure program
affinity between their prospective university program, take specific courses, choose to transfer
during or upon completion of their studies, and/or repeat selected courses to signal to universities
they are admissible.

While the student takes the initiative of signalling, choosing a message from a set of possible
messages, institutions/administrators have the responsibility of disseminating admission
expectations and assessment criteria in order for students to signal efficiently. In equilibrium
signalling, the value of the information signalled by the informed stakeholder (the students)
depends on how it is correlated with the characteristic of real interest to the uninformed
stakeholder (the institutions) with which they are communicating. Students must have a point of
reference in order to understand the value and impact that the information they reveal will have
on the transaction (Kreps, 2003).

Choosing with which Universities to Communicate. This research revealed several
symmetries when it came to students choosing with which universities to communicate.
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). Second, 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.

Comprehension of program choices, ultimately with which universities to communicate, can
occur quite early in a student’s education. Administrators stated that the best program alignments
generally occur when students are informed of prospective pathways in high school and plan
accordingly. They expressed that high school guidance counsellors have an important role in educating students about the signals they can potentially construct and send to universities as a result of their decision-making at college (program, coursework, assignments, tests and exams, portfolios, co-op placements etc.). As an external factor affecting the efficiency of the credit transfer information system, guidance counsellors have the opportunity to support college and university collaborative efforts and innovative programming/pathways. 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 describe the programs we offer, then after the panel discussion we have a fair or booth and they come and ask questions” (College Administrator). The difficulty experienced during these sessions included credit transfer and applied bachelor degrees being cited as a “Plan B” (College Administrator) by high school educators.

If the Government of Ontario’s new credit transfer framework is going to receive the traction it deserves, a culture shift may need to occur. While pathways 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.

Determining What to Communicate. Students’ literacy about the admissions and credit assessment process is an area where signalling can be ineffective if detailed information is not provided. Students should be able to make accurate estimations as to the strength of the information they will be presenting and determine the amount and type of credit(s) they will receive.

However, non-standardized credit transfer terminology was cited by administrators as directly impeding students and their own understanding of admission expectations and assessment criteria. With regard to students, 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” (College Administrator). Others commented that the term ‘credit’ itself can be rather difficult to comprehend, as many college administrators and students are used to course hours, and university credit systems typically vary (3/6 credit courses versus
0.5/1 credit courses). Moreover, some students struggle with the very terminology that defines their transition as the term transfer student and the various transfer model terminology varies slightly throughout the documents reviewed and in speaking with administrators. Administrators stated that students may not be able to locate information regarding credit transfer at times because they are unsure under which institutional website tab to search. Students can view themselves as new students, returning students, continuing education students in addition to credit transfer. A common language surrounding transfer was emphasized as a priority both within divisions and departments at an institution, between institutions and for use in communication with the Government of Ontario and agencies. As student mobility has rapidly expanded over the last five years with improved and increased arrangements, common institutional and advisor/counsellor knowledge and terminology has become imperative. With increased choice comes increased reliance on institutions to communicate expectations clearly.

Advising is a pertinent part of educating students about the importance of signalling, the consequences of receiving credit and credit applications. 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. While this ‘just-in-time’ advisement technique is generally effective, it also leaves something to be desired. Students signalling their value to a university need to be aware of the importance of program fit and that limited recognition for previous studies is a concern that can alter program paths substantially. Literacy regarding the meaning of program affinity, prerequisite functions, types of credit awarded, program and degree requirement distinctions, and the financial implications of receiving considerable amounts of credit is essential. 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 assessments. Advising surrounding this issue could be offered to concerned students in greater detail pre-university enrollment. Infusing information about the application of awarded transfer credits (program versus degree requirements; generic, unallocated, unassigned, non-specific or unspecified credits; reach backs; and the importance of program major and minor declarations) pre-university enrollment may limit confusion surrounding credit assessments and time to graduation. Students could be better informed about applying for and accepting only those credits that they can utilize. Signals students send regarding previous coursework, assignments, textbooks and portfolios must reflect their academic history, major and minor declarations, degree requirements and future course choices.

Further, it is worth noting that, once students have made decisions regarding the signals they wish to send, asymmetric information may persist if students have difficulty locating previous course materials or obtaining transcripts and records in a timely fashion. Accessing the host of supporting documents that must be submitted in order to properly signal and tell the stories of students’ learning can prove to be problematic. 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. The institutional archival of course outlines and descriptions for access by administrators and/or students is integral for determining learning outcomes and previous course material covered during credit assessments. Students applying for course-to-course credit, not listed on the OPTG, are required to submit course
descriptions and outlines to each receiving institution. The development of an electronic data interchange platform between administrators across institutions could minimize this paper trail. The centrality of information would also mean that administrators would not have to spend costly amounts of time searching for relevant information students fail to provide or can no longer locate. Overall, this may allow for more accurate and optimal transfer credit assessments. Current electronic data interchange platforms that have been established and maintained are setting precedents.

**Behavioural Economics: Simplification and Nudging**

While reducing the informational asymmetries outlined in the previous section are pertinent to improve transfer literacy, accessibility and reliability of information is not in itself sufficient to resolve problems that may exist in the transfer system. Essentially, it is necessary to consider how students absorb and process information in order to better-understand how governments and administrators can more efficiently ‘package’ information to enhance the credit transfer process.

Behavioural economists posit that individuals can be boundedly rational, in that they may struggle to make optimal decisions when faced with overwhelming amounts of information (Rubinstein, 1998). Instead, individuals may choose to simplify the choices available to them, follow rules of thumb, procrastinate, or not make decisions at all (Benartzi & Thaler, 2001; Choi, Laibson, & Madrian, 2011; Schwartz, 2004; Sethi-Iyengar, Huberman, & Jiang, 2004). In reality, more information may not always be better as weighing alternatives may be costly (Sims, 2003).

To overcome these cognitive limitations, behavioural economists often advocate the use of programs that educate, simplify choice, and direct (‘nudge’) individuals in desirable directions. A nudge is a libertarian/soft paternalistic program that directs individuals in a way that is in their perceived best interest (paternalism) but also maintains freedom of choice by allowing them to
opt out of such arrangements, if desired (libertarianism). Herein, a discussion will take place regarding how such programs may be effective in improving credit transfer in various ways. However, it is important to note that nudging mechanisms can only operate efficiently if efforts are also made to reduce information asymmetry. Nudges should not be viewed as a substitute for providing more information about credit transfer to students.

More mature transfer systems consider both the information available and processing of that information. In order for the credit transfer information system in Ontario to develop, these considerations will need to come to fruition. A few simplification and nudging mechanisms that will assist in developing the credit transfer information system as discussed during this research are provided. First, the Government of Ontario, agencies and institutions need to consider the simplification of academic regulations and terminology in place across institutions in Ontario with regard to admission and credit transfer. There are two examples of simplification efforts currently underway by the Government of Ontario and agencies: the PCCAT and ARUCC Transcript and Transfer Credit Nomenclature Study and the ONCAT Principles for Credit Transfer Policies and Procedures. The first phase of the Transcript and Transfer Credit Nomenclature Study completed in May 2014 identified transcript and transfer credit nomenclature practices across Canada and other jurisdictions. The objective for phase two, launched March 2015, is to construct a national, searchable database of standards and terminology which will assist policy developers and practitioners with transcript standards and transfer credit nomenclature (PCCAT & ARUCC, 2015). This mechanism will aid administrators by providing examples of promising practices and will create a shared community of practice by engaging all major national and regional stakeholders.
In 2014, ONCAT and its members crafted a made-in-Ontario set of best practices in credit transfer policies and procedures (ONCAT, 2014b). Institutions’ policies and procedures are being mapped according to the Principles in the format of institutional profiles. All college and university profiles are structured according to a common layout and consistent terminology has been utilized where possible. Advisor contacts, articulation agreements, GPA requirements, residency requirements, procedures, types of credit awarded, currency of previous postsecondary education, deadlines, costs, application forms, required documentation, appearance of awarded credit on transcript and appeals procedures are delineated. The approach aims to provide a current record of credit transfer academic regulations between colleges and universities with a comparison function. While this is a simplification of information with regard to the organization and centrality of its location, students utilizing these institutional profiles still face a wide range of policies and procedures that are described according to very detailed and institution specific terminology. While procedures across the college sector are fairly consistent with regard to major academic regulations (as imposed by the Government of Ontario- ex. tuition rebates for credit transfer), the autonomy of the university sector has resulted in grave variation. Effective choice making may be jeopardized by an exhaustive list of alternatives that is costly to consider and comprehend. Students may perceive their choice-making to necessitate expert information and surrender their choice to another, a concern voiced by many administrators during the course of this research. While comparisons can be drawn from the institutional profiles, it is difficult to do so when the scales, schemas, resources, supports and semantics vary throughout.

With regard to Ontario’s colleges and universities, reviewing current policies and procedures and instituting evidence-based practices is a step in the right direction. Administrators provided a few examples of questions that institutions need to ask themselves in order to create a student-centered information system: Are students able to determine if they meet the fluctuating GPA
required for admission and credit? Are course repeats allowed and if so how are they used in GPA calculations? Can students accurately estimate the amount of credit they will receive? Do they comprehend credit values/weights and type of awarded credit in order predict what portion of their program remains for completion?

Many discussed whether current policies were serving students and questioned the history of imposed regulations. Conversations focused on where reliable and standard approaches could be undertaken to simplify comparisons across institutions. Institutional tracking and research into the effectiveness of credit transfer deadlines, decisions, fees, tuition rebates, advising and assessment methods was endorsed. Evidence of the manner in which students are using institutional policies and procedures was believed to be the key to identifying any required adjustments and moving them through institutional governance channels. While some institutions have begun making adjustments under the stimulus and funding provided by ONCAT institutional grants, there is still work to be done.

With regard to nudges, is there an opportunity to direct choice and/or allow for cooling-off periods while students make transfer decisions? Flagging credit transfer students upon application and providing them with the materials and language to seek credit options is advantageous. Sending information packages automatically (rather than requiring students to request or locate information themselves) removes the likelihood that students may not find the information required. This is a simple nudge that directs students to pay attention to the credit assessment and what it may hold for them. Additionally, it provides them with more time to assess the type of credit they wish to receive and gather supplementary documentation in order to signal effectively.
Lastly, the implementation of default credit assessments, at all institutions, for coursework where established precedent cases have occurred is essential. Students’ capacity to focus on the type of credit(s) awarded, application of awarded transfer credits to degree and program requirements and submissions for more specialized credits may increase as a result. Instead of supplanting literacy, this default option allows students to focus on remaining transfer tasks.

The final section of this dissertation is intended to give a summary of the research results, outline recommendations for credit transfer in Ontario, and discuss contributions to scholarship and future research.
Chapter 8
Conclusion and Recommendations

This dissertation concludes with a summary of the research results, institution and system level policy and procedural recommendations, and a discussion of contributions to scholarship and future research.

Summary

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 (United Nations-Economic and Social Development Department, 2008). The first two sets of findings are summarized herein and the latter will be discussed with regard to recommendations.

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 assessment 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 of Ontario/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 the Government of Ontario/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 (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 assessment 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, the Government of Ontario and 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, institutional administrators identified several areas where symmetries and asymmetries exist between themselves and students. Recognized symmetries include shared (or uniform) clarity about the availability and benefits of articulation agreements, program choice and residency requirements, as well as shared (or uniform) confusion about the purpose and assessment of applied bachelor degrees, advising practices (internal and external), credit transfer terminology, information location/relevance and GPA calculations. 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 assessments. 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

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 institutional policies regarding the assessment of applied degree credits, practical resolutions regarding system-wide variances in academic regulations and terminology, early accurate advisement of students about credit transfer pathways and institutional offerings, open communication lines and resource sharing among college and university credit transfer advisors/counsellors, institutional identification of transfer students upon admission, and default credit assessments.

Recommendations

In areas where impediments were identified, the following eight recommendations have been made; each represents a potential guideline/amendment to current practice for the improvement of transfer literacy and/or functionality of the credit transfer system 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 assessments. Reliable mechanisms to collect and access student data across institutions are pertinent to a well-functioning credit transfer system.

2) *Institute and publicly post institutional policies regarding the assessment 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 assessment fees and timing, course repeats and declarations of previous postsecondary education) often results in disconnected advising practices.

4) 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.

5) Involve high school guidance counsellors in credit transfer discussions, news releases, research and planning events/conferences. This will aid in students receiving accurate and informative information regarding credit transfer pathways and institutional offerings earlier in their educational careers. Amplified promotion of high school guidance counsellors as conduits for information dissemination is necessary if students are to recognize the function and flexibility of a postsecondary education.

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, unallocated, unassigned, non-specific or unspecified credits; reach backs; and the importance of program major and minor declarations) pre-university enrollment may limit confusion surrounding credit assessments and time to graduation.

7) Flag credit transfer students upon application and automatically provide them with the materials and language to seek credit options. Sending information packages directly to students removes the likelihood that they may not locate the information required. In
addition, this approach alerts them to their ‘transfer student’ status and their rights and responsibilities to have previous education assessed for recognition.

8) Implement default credit assessments, at all institutions, for coursework where established precedent cases have occurred. Students’ capacity to focus on the type of credit(s) awarded, application of awarded transfer credits to degree and program requirements and submissions for more specialized credits may increase as a result.

Contributions to Scholarship and Future Research

This dissertation makes two important theoretical contributions to research on credit transfer, the economics of education, and contract theory. First, the conventional model of asymmetric information was augmented to include new elements from behavioural economics. More precisely, the consequences of adverse selection and moral hazard in (quasi-)markets for higher education are well-known (e.g. Spence, 1973). In addition, behavioural issues relating to how individuals process information, form expectations, and make decisions—such as present-biasedness or temptation, cognitive limitations, framing, reference-dependence, or inattention—are becoming increasingly recognized and understood (Laibson, 1997; Rubinstein, 1998; Gul & Pesendorfer, 2001; Sims, 2003; Card & Ransom, 2011). However, the extent to which these two literatures interact to affect market outcomes and complement each other to inform policy is still not well-understood.

By using credit transfer as an example, this research indicates that initiatives and policy interventions aimed at simply providing stakeholders with more information to mitigate problems of adverse selection do not always lead to improved (quasi-)market outcomes; such a program may have the inadvertent, undesirable effect of creating additional confusion. This point
is illustrated in Figure 7, which considers two initiatives that have identical effects of improving information among stakeholders in a particular market or transaction setting.

Figure 7 | Intersection of Asymmetric Information and Behavioural Economics

More precisely, suppose the credit transfer environment is initially in a state of high asymmetry, where students and institutions have very different information sets regarding how credit applications are assessed and awarded, but the information that is available (even in its limited capacity) is relatively accessible and comprehensible (denoted as point ‘A’). A policy intervention that aims to provide students and/or administrators with more information, but that does not take into account the ways in which the information is accessed and processed, may improve symmetry but reduce the degree of clarity about the transfer credit process (point ‘B’). This situation may arise if, for example, when faced with overwhelming amounts of information, students actually become more likely to procrastinate, to view the process as insurmountable or requiring the assistance of experts, or to avoid applying altogether, as discussed above. In this scenario, it is not a priori clear whether the intervention improved welfare, as the efficiency gain from additional information must be weighed against the cost of confusion that is also created. It is, therefore, possible for a cost-benefit analysis of a policy reform that unambiguously improves information to students—which would be accepted outright under a model of information
asymmetry—to be rejected when cognitive and behavioural limitations of students and/or administrators are also taken into consideration. In contrast, a policy intervention that increases information and provides it to students/administrators in a simple, accessible way is more likely to be welfare-enhancing (point ‘C’). While this model has been applied here to the scenario of credit transfer, the conceptual framework is robust to any setting in which policy makers seek to improve efficiency by providing more information to stakeholders. Most importantly, this discussion emphasizes that contracting problems and behavioural limitations are not separate problems that policy makers should address in a piecemeal way. Rather, policies to improve one issue can have detrimental effects on the other, a point that should be considered when deciding on socially efficient strategies for regulating markets where these issues arise.

The second theoretical contribution of this research is that it identifies areas where initiatives or policies could be implemented and tested. Policies should jointly mitigate the weighted average of supplying stakeholders with the information they require to make informed credit transfer decisions and cognitive limitations associated with processing information. Currently, policies are not being designed to jointly mitigate these two costs. Predictions of how stakeholders are expected to respond to policy interventions that provide additional information could be investigated empirically via controlled experiments within the credit transfer context.

Government of Ontario and institutional policy recommendations are in flux as a result of the new credit transfer framework and as such the recommendations identified could be tested during the implementation phase. This research would directly assess the importance of transfer literacy and support an agenda that measures asymmetric information and behavioural relations.

Evidence of whether policies and procedures are serving students is the key to identifying required adjustments and moving them through institutional governance channels.
In addition to the research proposed above, this study has led to a number of future projects that this researcher is motivated to undertake. First, in order to gain a 360 degree view of the credit transfer landscape, continued research could be conducted with potential and current credit transfer students. Working with the colleges and universities involved in this research, students' perceptions of the inventory of the symmetries and asymmetries identified by Government/agency documents and institutional administrators could be gathered. Students would be asked to complete the information matrix utilized throughout this study for a through cross examination.

Second, utilizing further concepts from the field of economics, the use of Bayesian updating would allow for a focused examination of students’ expectation formation and the rational updating of principles and beliefs as new information arises. In addition, a comprehensive evaluation of screening and signalling behaviour in institutional applicant models provincially would provide supplementary insights.

Finally, while this study utilizes concepts from contract theory and behavioural economics to examine the phenomenon at hand, complimentary theories and paradigms could offer added understanding. The fields of student development, behavioural psychology and cognitive structuralism offer lenses into the examination of expectation formation, information updating, processing, and motivation. A few examples of such complimentary theories are provided:

- Perry’s Scheme of Intellectual and Ethical Development (basic duality, multiplicity pre-legitimate, multiplicity subordinate, multiplicity correlate, relativism, commitment foreseen, initial commitment, orientation in implications of commitment, and developing commitments).
- Magolda’s Epistemological Reflection Model (absolute, transitional, independent and contextual knowing).
- King-Kitchener’s Reflective Judgment Model (early pre-reflective thinking, late pre-reflective thinking, quasi-reflective thinking and reflective thinking).
- Kelly’s Personal Construct Psychology which posits that everyone is ultimately a social scientist hypothesizing about and making meaning of events and outcomes; it is through this process of reflection and evaluation that individuals form their opinions and beliefs.

Follow-up research can draw on these theories to examine the mental processes in which students engage when forming credit transfer expectations, how they intake information, test hypotheses and reflect. These theories are typically directed from a student’s point of view and capture individual intellectual development or learning (the process of gaining and retaining new knowledge) through life experiences. In addition, the theories often incorporate moral and ethical considerations.

In closing, for the sake of this research, an economic paradigm was chosen as it lends itself to the phenomenon under investigation and supplies an innovative application; contractual arrangements, information production and dissemination, simplification, and behaviour among and within stakeholder groups at a system level. Rather than an individual inward developmental conceptualization, a collective and cooperative outward analysis was sought. The paradigm further employs public and private information delineations; political and operational organizational considerations; and physical, testable alternatives for modelling and modifying collective behaviour (defaults, nudging, framing, reference-dependence etc.). The approach mirrors the language and experiences shared by participants, who often
disclosed concerns regarding information overload, competition, negotiations/assessments and (quasi-)markets for credit transfer and higher education.

Government of Ontario, agencies and institutions could benefit from considering the simplification of academic regulations and terminology. Examples of simplification and nudges currently underway include the following. First, ONCAT’s Principles for Credit Transfer Policies and Procedures specifies a made-in-Ontario set of best practices and comparable institutional profiles, an initiative aimed to reduce information asymmetries in the credit transfer process for students. Second, the Alberta Universities Coordinating Council and ACAT’s adoption of a universal 4.0 grade point scale across universities and university-colleges, which ultimately simplifies transfer. Third, BCCAT’s designated Transfer Guide Coordinator and Education Planner summarizes and compares programs, admissions criteria, credit eligibility, and financial costs in one application, which improves access to information, simplifies the time costs associated with applying, and in some cases nudges students in desirable directions using default options. Lastly, the PCCAT and ARUCC Transcript and Transfer Credit Nomenclature Study aims to construct a national database of transcript standards and terminology, thereby improving access to information.

While each of these initiatives offer, to various degrees, partial solutions for the problems of information asymmetry and behavioural hurdles, there is still room for improvement in designing policies that jointly consider these two important issues.
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# Appendix A

## Document Analysis

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ONCAT FAQ and Glossary on Credit Transfer in Ontario

Report of the CMEC Working Group on Credit Transfer

Student Experiences in Credit Transfer at Ontario Colleges

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

Proceedings of the Student Pathways in Postsecondary education Conference

Report of the CMEC Working Group on Credit Transfer

Policy Statement for Ontario’s Credit Transfer System
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Public Services for Ontarians: A Path to Sustainability and Excellence

Multi-Year Accountability Agreements (MYAA) 2011-12
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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
Appendix B
Recruitment Letter

Leadership, Higher and Adult Education
University of Toronto/OISE
252 Bloor Street West, Toronto
Ontario, Canada
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 credit transfer demands, existing regulatory and advising practices by the Government of Ontario, 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 the transfer process which affect students’ facility to transfer and institutions’ ability to advise and 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 assessments.
**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 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 the Government of Ontario 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 the Government of Ontario’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; and
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
c.arnold@utoronto.ca

Daniel W. Lang
Ph.D. University of Toronto, Professor Leadership, Higher and Adult Education,
OISE/UT
252 Bloor Street West,
Toronto, Canada, M5S 1V6
dan.lang@utoronto.ca
(416) 978-1246
Appendix C

Telephone Script

I: Good morning/afternoon [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 calling as a follow-up to the recruitment letter I sent you last week inquiring about [Insert institution’s name] willingness to participate in a research study concerning transfer literacy in the province.

I: Having not heard back about [Insert institution’s name]’s participation in the study, I thought I would call and see if I might answer any questions or concerns you have about the study. I am also able to provide you with any additional information about the study you might wish to obtain at this time.

I: Are there any questions or concerns you currently have about the study?

I: Do you wish for me to send you a copy of the organizational consent letter?

I: Thank you for your time/cooperation and support. Have a wonderful day. Goodbye.
Appendix D

Letter of Invitation to Participate

Leadership, Higher and Adult Education
University of Toronto/OISE
252 Bloor Street West, Toronto
Ontario, Canada M5S 1V6

www.oise.utoronto.ca/depts/lhae

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 assessments.

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 credit transfer demands, existing regulatory and advising practices by the Government of Ontario, 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 the transfer process which affect students’ facility to transfer and institutions’ ability to advise and 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 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 the Government of Ontario 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; and
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.

Christine Helen Arnold  
Ph.D. Candidate, Higher Education  
Leadership, Higher and Adult Education,  
OISE/UT  
252 Bloor Street West,  
Toronto, Canada, M5S 1V6  
c.arnold@utoronto.ca

Daniel W. Lang  
Ph.D. University of Toronto, Professor  
Leadership, Higher and Adult Education,  
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252 Bloor Street West,  
Toronto, Canada, M5S 1V6  
dan.lang@utoronto.ca  
(416) 978-1246
Appendix E
Reminder Letter of Invitation to Participate

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

REMINDER 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.

Last week, I shared with you an opportunity to participate in a research study investigating
the essential information students should be able to comprehend and apply about the
transfer process. Your [Insert senior academic or student affairs/services officer’s name],
values the insight you have as a dedicated member of your institution and the emphasis
you place on transfer student success. Taking stock of both the formal and informal
information you equip students with to successfully proceed in their transfer of credit
applications and the advisement practices that assist in providing this information to
students is critical if we are to create the best student experience. Understanding
the transfer information students receive at different touch points across the institution
influences your work in supporting student mobility.

[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.
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.

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 the Government of Ontario 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.

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.

We are happy to answer any questions you may have about this study.

Christine Helen Arnold  
Ph.D. Candidate, Higher Education Leadership, Higher and Adult Education, OISE/UT  
252 Bloor Street West, Toronto, Canada, M5S 1V6  
c.arnold@utoronto.ca

Daniel W. Lang  
Ph.D. University of Toronto, Professor Leadership, Higher and Adult Education, OISE/UT  
252 Bloor Street West, Toronto, Canada, M5S 1V6  
dan.lang@utoronto.ca  
(416) 978-1246
Appendix F
Focus Group 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.

<table>
<thead>
<tr>
<th></th>
<th>Internal Information on Transfer Processes</th>
<th>External Information on Transfer Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confusion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reporting out.

- What similarities do you see between student and administrator perspectives?
- What differences did you find?
3) 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 assessment
  (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 assessment) 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. Governments 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.
Appendix G
Consent Letter

To the participants in this 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 credit transfer demands, existing regulatory and advising practices by the Government of Ontario, 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 the transfer process which affect students’ facility to transfer and institutions’ ability to advise and accommodate transfer students?

[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. 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.

This study will be carried out in Ontario under the supervision of Dr. Daniel Lang, Ontario Institute for Studies in Education (OISE) at the University of Toronto. The data is being collected for the purposes of a doctoral dissertation, subsequent manuscripts and presentations.

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 the Government of Ontario 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. The focus group will be audio taped 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.

There are no foreseeable risks associated with participating in this study. 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; and
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.

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

If you have any questions, please feel free to contact me at 647-537-4525 or c.arnold@utoronto.ca. You may also contact my supervisor, Dr. Daniel Lang, at 416-978-1246 or dan.lang@utoronto.ca. 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.

Christine Helen Arnold
Ph.D. Candidate, Higher Education Leadership, Higher and Adult Education, OISE/UT
252 Bloor Street West,
Toronto, Canada, M5S 1V6
c.arnold@utoronto.ca

Daniel W. Lang
Ph.D. University of Toronto, Professor Leadership, Higher and Adult Education, OISE/UT
252 Bloor Street West,
Toronto, Canada, M5S 1V6
dan.lang@utoronto.ca
(416) 978-1246

By signing below, you are indicating that you are willing to participate in the study, you have received a copy of this letter, and you are fully aware of the conditions above.

Name: ____________________________ Institution: ____________________________

Signed: ____________________________ Date: ____________________________

Please initial if you agree to have the focus group audio taped: _____
## Appendix H
### Phase I NVivo Nodes and Sub-Nodes

<table>
<thead>
<tr>
<th>Node</th>
<th>Document Characteristics</th>
<th>Notes on the Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
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<tr>
<td>A1</td>
<td>Purpose</td>
<td>Reference to the purpose of the document</td>
</tr>
<tr>
<td>A2</td>
<td>Stakeholders</td>
<td>Reference to stakeholders and their invested interests within the credit transfer system</td>
</tr>
<tr>
<td>A3</td>
<td>Action</td>
<td>Reference to future credit transfer action(s) to be undertaken in the province</td>
</tr>
<tr>
<td>A5</td>
<td>Resources and Funding</td>
<td>Reference to required resources to initiate transfer activity or funding being provided for future credit transfer activities and or research</td>
</tr>
<tr>
<td>A5.1</td>
<td>Administrator Expectation</td>
<td>Senior leaders, departmental and program coordinators, deans, advisors/counsellors, faculty members and staff- where the discussion focuses on assisting these individuals in their efforts to promote and facilitate credit transfer among institutions</td>
</tr>
<tr>
<td>A5.2</td>
<td>Student Expectation</td>
<td>Students, learners, access, success and graduation- where the discussion focuses on concepts, materials and tools to assist students’ navigation of the credit transfer system and research collected about students’ credit transfer activity, expectations and satisfaction (data and findings)</td>
</tr>
<tr>
<td>B</td>
<td>Credit Transfer Elements</td>
<td>Reference to specific elements of the transfer process and evaluation</td>
</tr>
<tr>
<td>B1</td>
<td>Program and Course Planning</td>
<td>Reference to program requirements, course offerings, prerequisites and curriculum alignment</td>
</tr>
<tr>
<td>B2</td>
<td>Articulation and Transfer Models</td>
<td>Reference to the identification and descriptions of all forms of college to university transfer models currently employed in the Ontario system (ex. block transfer, laddering, bridge programs etc.)</td>
</tr>
<tr>
<td>B2.1</td>
<td>Category</td>
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<tr>
<td>B2.1a</td>
<td>Bilateral</td>
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<tr>
<td>B2.1b</td>
<td>Multilateral</td>
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<tr>
<td>B2.1c</td>
<td>Direct Entry</td>
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<tr>
<td>B2.2</td>
<td>Type</td>
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<tr>
<td>B2.2a</td>
<td>Credit Transfer/Block/Advanced Standing</td>
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<tr>
<td>B2.2b</td>
<td>Collaborative/Joint/Integrated/Concurrent</td>
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<tr>
<td><strong>B2.2c</strong></td>
<td>Degree-Completion/Consecutive</td>
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<tr>
<td><strong>B2.3</strong></td>
<td>University-University, University-College, College-College</td>
<td></td>
</tr>
<tr>
<td><strong>B3</strong></td>
<td>Admissions</td>
<td>Reference to admissions criteria, documentation and outcomes</td>
</tr>
<tr>
<td><strong>B4</strong></td>
<td>Credit Review and Evaluation Process</td>
<td>Reference to credit review roles and relations within an institution and credit transfer determinants (ex. GPA, assigned vs. unassigned credit, program and course affinity, required materials necessary for review, timing of review process)</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>Tools and Strategies</td>
<td>Reference to tools and strategies that have the opportunity to develop and promote credit transfer activity</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>Operational Definitions</td>
<td>Reference to the terms ‘transfer, credit transfer, articulation, student mobility, seamless and affinity’ in the Ontario context</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Role of the Colleges</td>
<td>Reference to the role of the CAATs and their function in credit transfer partnerships</td>
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<tr>
<td><strong>F</strong></td>
<td>Transfer Literacy</td>
<td>Reference to the need for knowledge, understanding and application of credit transfer material</td>
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<td>Node</td>
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<tr>
<td><strong>A</strong></td>
<td><strong>Organizational Policies and Structures</strong></td>
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</tr>
<tr>
<td>A1</td>
<td>Credit Transfer Policy/Statement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reference to official credit transfer policies outlined in academic regulations/directives documents, calendars and handbooks at your institution.</td>
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<tr>
<td>A2</td>
<td>Multi-Campus Distinctions</td>
<td></td>
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<tr>
<td></td>
<td>Reference to credit transfer policies and practices and the similarities and dissimilarities across multi-campus structures.</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong></td>
<td><strong>Credit Transfer Information (Mis)Alignments</strong></td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>Symmetries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reference 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 between institutional administrators and students</td>
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</tr>
<tr>
<td>B1.1</td>
<td>Information Confusion</td>
<td></td>
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<tr>
<td>B1.1a</td>
<td>Timing and Method of Credit Transfer Assessment</td>
<td></td>
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<tr>
<td></td>
<td>Reference to shared information confusion regarding credit assessment processes, decisions and implications of awarded/denied credit.</td>
<td></td>
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<tr>
<td>B1.1b</td>
<td>Applied Bachelor Degrees</td>
<td></td>
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<tr>
<td></td>
<td>Reference to shared information confusion regarding the purpose of an applied bachelor’s degree and corresponding credit assessment when utilized as a pathway</td>
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<tr>
<td>B1.1c</td>
<td>Advising Practices (Internal &amp; External)</td>
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<tr>
<td></td>
<td>Reference to shared information confusion regarding advising practices on and off-campus regarding credit transfer</td>
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<tr>
<td>B1.1d</td>
<td>Terminology</td>
<td></td>
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<tr>
<td></td>
<td>Reference to shared information confusion regarding the multiple terms and definitions used to facilitate and discuss credit transfer</td>
<td></td>
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<tr>
<td>B1.1e</td>
<td>Information Location/Relevance</td>
<td></td>
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<tr>
<td></td>
<td>Reference to shared information confusion regarding contacts, location of information, wait times, and data sharing among institutions</td>
<td></td>
</tr>
<tr>
<td>B1.1f</td>
<td>GPA Calculation</td>
<td>Reference to shared information confusion regarding admission cut-offs and grading scales across institutions</td>
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<tr>
<td>B1.1g</td>
<td>Applicant Pool</td>
<td>Reference to shared information confusion regarding credit transfer student quotas, reserved seats, and high demand programs at universities</td>
</tr>
<tr>
<td>B1.2</td>
<td>Information Clarity</td>
<td>Reference to shared (or uniform) clarity between institutional administrators and students</td>
</tr>
<tr>
<td>B1.2a</td>
<td>Articulation Agreements</td>
<td>Reference to shared information clarity regarding the availability and structure of articulation agreement materials for planning purposes</td>
</tr>
<tr>
<td>B1.2b</td>
<td>Program Choice</td>
<td>Reference to shared information clarity regarding the selection of programs, back-up plans etc.</td>
</tr>
<tr>
<td>B1.2c</td>
<td>Residency Requirements</td>
<td>Reference to shared information clarity regarding the amount of study students must complete in order to be awarded the credential in which they are enrolled.</td>
</tr>
<tr>
<td>B2</td>
<td>Asymmetries</td>
<td>Reference to an incongruity of information resulting in non-uniform knowledge across relevant stakeholders. In this case, students would directly benefit from additional information from institutional administrators or Government of Ontario/agencies that is not being fully disseminated</td>
</tr>
<tr>
<td>B2.1a</td>
<td>Credit Transfer Assessments (Advanced Standing, Direct Entry, Equivalencies etc.)</td>
<td>Reference to an incongruity of information regarding program affinity, equivalencies, advanced standing definitions and re-assessments</td>
</tr>
<tr>
<td>B2.1b</td>
<td>Application Process and Required Documentation</td>
<td>Reference to an incongruity of information regarding enrolment and follow-up procedures</td>
</tr>
<tr>
<td>B2.1c</td>
<td>Financial Aid and Costing</td>
<td>Reference to an incongruity of information regarding supplemental fees and part-time/full-time distinctions</td>
</tr>
<tr>
<td>B2.1d</td>
<td>Credit Transfer Portfolio (Location, Unit[s] and Personnel Involved)</td>
<td>Reference to an incongruity of information regarding who is responsible for the credit transfer portfolio on campus</td>
</tr>
<tr>
<td>B2.1e</td>
<td>Reach Backs</td>
<td>Reference to an incongruity of information regarding required foundation coursework at the first and second year level that must be completed</td>
</tr>
<tr>
<td>B2.1f</td>
<td>Degree and Program Requirements</td>
<td>Reference to an incongruity of information regarding the application of credit assessments</td>
</tr>
<tr>
<td>B2.1g</td>
<td>Variations in Structure (Institutional Policies and Procedures)</td>
<td>Reference to an incongruity of information regarding program flexibility</td>
</tr>
<tr>
<td>C</td>
<td><strong>Credit Transfer Elements</strong></td>
<td>Reference to the principal elements of the transfer process and their importance in supporting successful student transitions</td>
</tr>
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<td>Program and Course Planning</td>
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<td>C2</td>
<td>Articulation and Transfer Models</td>
<td>Reference to the identification and descriptions of all forms of college to university transfer models currently employed in the Ontario system (ex. block transfer, laddering, bridge programs etc…)</td>
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<td>D</td>
<td>Tools and Strategies</td>
<td>Reference to existing and new tools and strategies that have the opportunity to develop and promote credit transfer activity</td>
</tr>
<tr>
<td>D1</td>
<td>Publication of Credit Transfer Material</td>
<td>Reference to the innovative publication of material (web or print) that outlines and provides students with information in advance of their transfer application about the process and/or credit expectations.</td>
</tr>
<tr>
<td>D2</td>
<td>Orientation Event(s)</td>
<td>Reference to innovative orientation events, seminars and workshops specifically designed for credit transfer students</td>
</tr>
<tr>
<td>D3</td>
<td>Direct Student Outreach</td>
<td>Reference to contacting and/or alerting students directly of credit transfer information</td>
</tr>
<tr>
<td>D4</td>
<td>Required Improvements to Existing Technology</td>
<td>Reference to existing technology at the institutional or system level that requires improvements for full functionality</td>
</tr>
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<td>E</td>
<td>Role of the Colleges</td>
<td>Reference to the role of the CAATs and their function in credit transfer partnerships</td>
</tr>
<tr>
<td>F</td>
<td>Support Services</td>
<td>Reference to support services on campus that assist credit transfer student transitions. Ex. Accessibility Services, Counselling Services, Residence, Library etc…</td>
</tr>
<tr>
<td>G</td>
<td>Role of the Market</td>
<td>Reference to the competitive nature of recruiting credit transfer students and the tactics used to market pathways, programs etc…</td>
</tr>
<tr>
<td>H</td>
<td>Institutional Specific Transfer Terminology</td>
<td>Reference to institutional specific terms that are used throughout the credit transfer process</td>
</tr>
<tr>
<td>I</td>
<td>Transfer Literacy</td>
<td>Reference to the need for knowledge, understanding and application of credit transfer material</td>
</tr>
<tr>
<td>J</td>
<td>Priorities for Literacy in a ‘Seamless’ System</td>
<td>Reference to the importance of a ‘seamless’ credit transfer system and the shifting concerns of literacy in such an environment</td>
</tr>
</tbody>
</table>