



UNIVERSITY OF TORONTO  
OISE | ONTARIO INSTITUTE  
FOR STUDIES IN EDUCATION

Centre for the Study of  
**CIHE**  
Canadian & International Higher Education

# **Two Towers of Transformation: The Compatibility of Policy Goals of Differentiation and Student Mobility**

**Stacey Young, Pierre Piché and  
Glen A. Jones**

**CIHE Report 2017.01**

**A report to the Ontario  
Council for Articulation and  
Transfer**

A report by:



Ontario Institute for Studies in Education (OISE)  
University of Toronto  
252 Bloor St. West, 6<sup>th</sup> Floor  
Toronto, Ontario M5S 1V6 Canada

[www.oise.utoronto.ca/cihe](http://www.oise.utoronto.ca/cihe)

Please cite this publication as:

Young, S. J., Piché, P. G. and Jones, G. A. (2017). *The Two Towers of Transformation: The compatibility of the policy goals of differentiation and student mobility*. Toronto: Centre for the Study of Canadian and International Higher Education, OISE-University of Toronto.

## Contents

Acknowledgements .....	4
1 Executive Summary .....	5
2 Introduction.....	6
3 Key concepts defined - Diversity and student mobility.....	7
4 Benefits and challenges to students, institutions and government of increased differentiation and student mobility.....	8
4.1 Differentiation .....	8
4.2 Student mobility.....	9
4.3 Intersection of benefits.....	10
5 Ontario in context – A historical review of differentiation and student mobility .....	11
5.1 Differentiation .....	11
5.2 Student mobility.....	13
5.3 Strategic mandate agreements .....	17
6 Methodology and literature review.....	18
7 Review of the literature on institutional behaviour.....	19
8 Policy levers or drivers that impact differentiation and student mobility.....	20
8.1 Differentiation .....	20
8.2 Student mobility.....	22
8.3 Intersection of policy levers .....	24
9 Articulation case study analysis .....	25
9.1 Development and renewal of articulation agreements – A sample process .....	25
9.2 Current pattern of articulation agreements.....	27
10 Credit transfer analysis .....	30
11 Other observations from articulation and credit transfer analysis .....	33
12 Key observations for future considerations .....	33
References .....	35

## Acknowledgements

We would like to acknowledge the contributions of Mr. Ken Snowdon (President, Snowdon and Associates) and Dr. Henry Decock (Associate Vice-President, Academic Partnerships, Seneca College) that contributed to the overall quality of this study.

We are also extremely grateful for the support of the Ontario Council on Articulation and Transfer in funding this project.

# 1 Executive Summary

In the mid-2000s, the Ontario government began seeking ways to introduce greater financial sustainability in the postsecondary system through two major policy goals: greater institutional differentiation, as well as mechanisms that would enhance student mobility – chiefly by way of the tools of credit transfer and institutional articulation. Both are intended to deliver and expand postsecondary education in a more cost-effective and sustainable manner. This paper traces the evolution of those two “Policy Towers,” ultimately considering how they reside within the same system, either competing or complementing each other.

This paper begins by examining the benefits of expanded opportunities for student mobility and differentiation with an attempt at identifying the degree of intersection between the two policy goals. The examination revealed that both policies are aligned from an efficiency/effectiveness and public good/social justice perspective. Both attempt to drive quality, reduce cost structures to government and students, as well as increase access to baccalaureate education.

An examination of the policy levers and drivers that impact differentiation and student mobility in Ontario are first placed historically in order to provide context to the discussion and are examined by drawing from organizational and globalization studies. While there are number of policy levers and drivers that have been used by the provincial government to increase differentiation or student mobility, some levers have been identified as having a series of common elements between the two policy goals – central planning role of government, financial mechanisms, inter-sector cooperation and collaboration, and competition. Although this paper argues that the two policy towers are indeed highly complementary and mutually dependent, differentiation as a policy goal requires a recognition that student mobility must be supported – there are a variety of policy levers that have not been used effectively (or used at all) in the pursuit of either one.

This paper made use of a small number of case studies — beginning with the ‘partnerships’ funded by the Ontario Council on Articulation and Transfer, to draw out certain key characteristics that can be mapped against institutional types used in differentiating the higher education system by clusters of institutions. The study also examined the extent to which various institutional types have been engaged in credit transfer and compared and contrasted the various strategies used to increase credit transfers and provide support to transfer students and improve access to information.

It was noted, among other observations that depending on their size, mission and demographic futures, institutions use different tools available to them to support the broader provincial policy goal of introducing greater student mobility in the system. It appears from our detailed analysis in the latter part of the paper that universities place a greater emphasis on credit transfer policies and protocols, or on the development of articulation agreements. The importance to universities of credit transfer and/or program articulation with colleges also reflects the demographic challenges faced by these institutions in the region in which they are located.

The act of engaging other institutions in the formation of academic partnerships between institutions that yield pathways and create choice for students (e.g., for students who began their studies in the college sector and wish to pursue university-level studies, or vice versa), is labour-intensive, which involves a variety of different areas within the institutions. There are also risks to creating such partnerships, risks that are heightened in the current context when funding, student aid and other policies do not render such partnerships exceptionally beneficial to either party.

If the province does indeed decide to adopt a policy of creating greater institutional differentiation, which appropriately executes the potential levers at its disposal, the government must then compel institutions to take on a greater commitment to nurturing student mobility.

The paper concludes with some key observations that would warrant future assessment within the broader funding formula and OSAP policies and practices that the authors feel are necessary for either policy goal to succeed. These are:

- As part of the funding formula review for the university sector, establish an extra formula enrolment envelope to encourage institutions to increase the number of transfer students (through program partnerships, credit transfer and the creation of articulation agreements).
  - a. This may be in the form of a fixed per student dollar value that exceeds the BIU value of the program in which the student enrolls.
- Going forward, request that institutions include as part of their Strategic Mandate Agreement submission, a discussion of the institution's transfer capacity and how it will be achieved through the use of one or both student mobility tools.
- Ensure that the distance component of the Ontario Student Assistance Program is sufficient (in terms of both value and policy intent) to meet the costs of student mobility and choice.

## 2 Introduction

Over the last 10 years, the Ontario government has adopted a number of strategies – some more effective than others – associated with achieving two public policy pillars that together make up the bulk of its transformation agenda. This agenda includes the themes of achieving greater *student mobility* and *differentiation* among institutions. Both are intended to deliver and expand postsecondary education in a more cost-effective and sustainable manner.

In the years following the implementation of the Rae Review (post-2006), the provincial government began to consider the relevance and policy implications of differentiation. For its part, the differentiation policy framework was adopted to reshape Ontario's higher education system in an effort to increase the system's overall sustainability, improve Ontario's global competitiveness and increase access to students by building on the existing strengths of its colleges and universities. The policy would ask institutions to consider how they differ in the role they play in the province in the following six areas: jobs, innovation and economic development in distinct regions; innovative teaching and learning; access to underrepresented student groups; research and graduate education; breadth of programs and credential offerings; and extent of institutional collaboration and student mobility (MTCU, 2013).

This was done within the confines of a funding formula that did not itself incent institutional differentiation, but rather provided "incremental funding tied to performance indicators, mostly made within a context of respecting institutional autonomy, rejecting central planning functions while increasing competition, cooperation and collaboration amongst higher education institutions" (Piché, 2015b, p. 52). It also advanced this agenda through what were, and remain, largely public communications vehicles that included an accountability component – the Multi-Year Accountability Agreements (MYAAs) and the Strategic Mandate Agreements (SMAs). Being unattached to any considerable amount of money (at least for now), the two exercises – the MYAAs and the SMAs – were government's attempts to encourage universities and colleges to define themselves and report on a related set of province-wide indicators of performance. Working in

tandem, additional reporting mechanisms would reveal institutional weaknesses, which would, theoretically, help contain the aspirations of overly ambitious institutions.

Some higher education thinkers regard student mobility and differentiation as mutually dependent:

Differentiation drives quality and student choice. If the aspirations of the student change during their studies or lifetime, a differentiated system offers the opportunity to switch to another postsecondary institution more aligned with their amended intentions and circumstances. The opportunity for students to move among postsecondary institutions is why an efficient and robust credit transfer system is more necessary in a differentiated system. Therefore, improving Ontario's credit transfer system should precede or accompany more system differentiation (Weingarten & Deller, 2010, pp. 10-11).

There is no reason to suggest an incompatibility between the goals of institutional differentiation and student mobility. However, their inter-connectedness or inter-dependence is not perhaps for the reasons cited in the passage above. A differentiated system does not afford an opportunity to students to discover a greater variety of programming; rather, differentiation challenges the architects of the system to enable students to move through the system with greater ease. The levers that allow for that mobility are explicit credit transfer policies and a funding formula that facilitates the formation of academic partnerships through the creation of articulation agreements and adequate student aid funding. For the purposes of this paper, though, the authors will focus on the current pattern of articulation agreements and transfer activity and how these historical patterns may intersect with a differentiated PSE system.

We will also analyze the province's implementation of a differentiation policy, a foundation for decision making by the province, through the negotiation of institutional mandate agreements and by amendment to the funding formula to focus on institutional strengths, as a backdrop to its aspirations to build a more expansive system of credit transfer and institutional articulation.

The study will conclude by providing a set of recommendations that will inform the practical merging of these two policy goals.

### **3 Key concepts defined - Diversity and student mobility**

Institutional diversity (variety of institutions within a system or sector and the dispersion of institutions across types, see Huisman, 1998) is better understood when the specific institutional characteristic under examination is clearly identified. A number of recent studies (Clark, Moran, Skolnik, & Trick, 2009; Weingarten & Deller, 2010; Clark, Trick & Van Loon, 2011, Piché, 2015a) and MTCU's (2013) policy framework examined and called for institutions to be differentiated over a multitude of dimensions (size, institutional type, degree levels, student demographics, prestige, geographic location) with an overarching emphasis on systemic diversity (differences in the type of institution, size of institution and control within a postsecondary system, Birnbaum, 1983) and programmatic diversity (differences in degree level, mission and program emphasis, Birnbaum, 1983).

While the literature often distinguishes between diversity, diversification (process in which the level of diversity increases, see Huisman, 1998) and differentiation (process in which new entities emerge in a system or sector, see Huisman, 1998) this study will use the terms "institutional diversity" and "differentiation" to refer to differences between or among postsecondary institutions with respect to specific institutional characteristics" (Skolnik, 2013, paragraph 3).

The concept of student mobility in Ontario is most strongly associated with the dual policies of credit transfer and institutional articulation. Simply put, credit transfer considers the equivalency of course credits across institutions that are of high affinity (e.g., comparing the learning outcomes of Economics 101 at University X versus the ‘same’ course at University Y, or even College B). Institutional articulation agreements at the program level, on the other hand, facilitate the “block” recognition of credits when a student moves from institution A to institution B (or credential A to credential b). In so doing, a receiving institution grants advanced standing to the student, in an overall effort to eliminate unnecessary duplicative learning.

According to the Australian Qualifications Framework (AQF) glossary of terminology, credit transfer and credit are defined as the following:

Credit transfer is a process that provides students with agreed and consistent credit outcomes for components of a qualification based on identified equivalence in content and learning outcomes between matched qualifications (AQF, 2013-a)

Credit is the value assigned for the recognition of equivalence in content and learning outcomes between different types of learning and/or qualifications. Credit reduces the amount of learning required to achieve a qualification and may be through credit transfer, articulation, recognition of prior learning or advanced standing (AQF, 2013-b).

The same source offers the following definition of articulation:

Articulation arrangements enable students to progress from a completed qualification to another with admission and/or credit in a defined qualification pathway (AQF, 2013-c).

Other terms that complicate the language of student mobility include “pathways” and “academic partnerships.” In this study, the latter term refers broadly to the variety of ways in which institutions can combine their resources (space, faculty members) to offer shared programming, and which includes articulation agreements. Pathways has become a frustratingly ubiquitous term that, in the Ontario context, refers some sort of transparent way students may navigate a way from one institution to the other, in a manner that facilitates entry into the receiving institution. Pathways do not necessarily rest upon an articulation agreement, and often involve only two institutions.

Increasingly, the currency that allows for equivalency to be established is learning outcomes (LOs). Learning outcomes make it possible to assess the degree to which duplication in learning can be eliminated. Theoretically, then, when equivalency is established on the course level or the program level, more efficient pathways between programs and credentials can be established.

## **4 Benefits and challenges to students, institutions and government of increased differentiation and student mobility**

### **4.1 Differentiation**

Over the years, a number of studies have cited arguments in favor of a diversified higher education system. “Diversity has been identified in the higher education literature as one of the major factors associated with the positive performance of higher education systems” (van Vught, 2008, p.154). Birnbaum (1983) was among the earliest to identify its value to meet the needs of a diversified student body (students can be



better matched to the institution type that truly meets their learning styles and aspirations), different labour markets, and to meet the needs of different interest groups.

More specifically, a diverse higher education system is more efficient and effective for both government and institutions in achieving their purposes and functions, as it encourages the achievement of quality outcomes while lessening mission drift (clarity around institutional missions combined with government regulations can prevent mission drift). A diverse system also facilitates targeted and strategic funding allocations (especially in times of economic restraint) to specialized institutions to meet the specific needs of funding agencies (Singh, 2008).

From a public good/social justice perspective, Singh's (2008) review of the literature identified that a diverse system has more demonstrable lines of accountability, and that diversity is a

more effective way to address the multiple social purposes of higher education; widening of access to higher education for non-traditional students that better addresses their varied needs...fairer access through differential fee structures at different institutions...[and] better informed choices by prospective students [when institutions are clearly classified], p. 248.

There are, however, adverse – and perhaps unintended – consequences to a differentiated system. Geographic accessibility could eliminate the benefits of a diverse higher education system when the distances between major urban centers are large and the cost of transportation is high, thereby limiting educational opportunities for students to a few types of institutions (Jones, 1996). These concerns were also expressed by the Council of Ontario Universities as they seek a diverse sector that still provides a wide array of programs across the province. “The greater the diversity of the system, the more difference it makes *which* institution an individual attends in regard to the quality of the education received and future options for subsequent education and employment” (Skolnik, 1986, p. 5). Specialized institutions would not have the breadth of disciplines and activities found in a comprehensive university, which would thereby limit the range of potential interactions between different types of students and different types of faculty (Skolnik, 1986).

## 4.2 Student mobility

The overall purpose of both credit transfer policies and the formation of academic partnerships in the form of articulation agreements are to expand student choice and enhance the opportunity for students to move amongst PSE institutions. These tools help to ensure that students are academically prepared to succeed in their new programme of study (through these formal agreements), and reduce the costs of postsecondary education to students by eliminating the need to duplicate learning (see Young, Roderick & DiPietro, 2016). An efficient student mobility framework ensures that students are able to achieve their maximum potential in learning, and can “complete their studies in a timely manner... [and increases] a student’s ability to study anything, anywhere, at any time” (Junor & Usher, 2008, p.20). It ensures fair and appropriate recognition of their past studies and provides clear information about transfer processes and pathways with credit recognition requirements that are comprehensible to students.

The absence of efficient credit transfer creates a barrier to students to pursue further postsecondary education. “Even though credit transferability may not be the most important barrier to mobility, it is perhaps the most intractable one simply because of the number of partners which need to be mobilized in order for a solution to be found” (Junor & Usher, 2008, p.19). Furthermore, an academic credential is almost never issued without the student accumulating essential credits (pre-requisites and minimum grade requirements) that demonstrate an appropriate level of mastery in an academic program of study, in order to ensure that all graduates from an institution “possess the same core knowledge and competencies” (Junor &

Usher, 2008, p.22). While these requirements ensure minimum levels of academic quality are met before a credential is issued by an institution, they may also lead to duplicative learning.

It has been widely accepted that, in most jurisdictions, the cost to government and students of obtaining a baccalaureate degree by attending two years at a college followed by two years at a university, is lower than the cost of attending a four-year program at a university, assuming that the student does not need to take extra courses to make up for courses not taken at college (Trick, 2013).

In addition, the cost incurred by universities on admission, orientation, and academic advising for transfer students was noted to be higher than those for direct-entry students. The cost per-student of recruiting transfer students was lower than for direct-entry students as there are a limited number of channels available for recruiting transfer students as compared to direct-entry students (Young et al, 2016; Trick, 2016).

However, it is often assumed that the three main players who directly fund the postsecondary education system – students, government and institutions – will all reap substantial cost savings by rationing the system’s resources and leveraging fixed costs to the benefit of all parties’ maximum advantage (see latest exercise in assessing the potential for costs savings by Snowdon and Brady, 2015), such assumptions have not been rigorously interrogated. Furthermore, it has been pointed out repeatedly by institutions and scholars (notably, Skolnik, 2005), that there exists no real structural financial incentive for institutions to actively pursue transfer students and incur additional costs (developing articulation arrangement and related infrastructure for CAAT transfer students) in a period of enrolment growth, with the exception that institutions facing declining enrolment may theoretically stem these declines through the development of transfer policies and agreements.

Skolnik (2005) makes the case that increased student mobility could be achieved if Ontario universities would be more differentiated beyond the current research-intensive universities, have open access, flexible admission policies and would value student mobility between institutions. He argues that institutions with degree-granting authority includes those institutions that provide traditional polytechnic education, making them more similar to CAATS than to universities (ibid).

### 4.3 Intersection of benefits

The benefits of student mobility and a highly differentiated system are aligned from an efficiency/effectiveness perspective. Both attempt to drive quality through specialization or by allowing some institutions to compete globally (differentiated system) or through increased collaboration between sectors (student mobility). There is also a reduction in cost structures for government as targeted and strategic approaches can be developed to support more specialized institutions (differentiated system) and a reduction in postsecondary spending occurs when a student attends part of their baccalaureate education at a college rather than entering directly into university (student mobility).

The benefits of expanded student mobility and a highly differentiated system are also aligned from a public good/social justice perspective. Both attempt to increase access to baccalaureate education either by creating different types of institutions beyond the traditional research university that will increase access to non-traditional students (differentiated system) or by allowing students to study closer to their family home (student mobility). There is also a reduction in cost structures for students with the creation of differentiated fee structures (differentiated system) and the elimination of duplicative learning (student mobility).

## 5 Ontario in context – A historical review of differentiation and student mobility

Ontario higher education is composed of universities that were created with similar missions (teaching, research and community service) by separate acts of the provincial legislature with the authority to grant degrees. Colleges were established under one act that offers technical, non-degree, community-responsive and vocational programming, and, since 2000, to offer applied baccalaureate degrees. The province has few restrictions on the non-degree private career colleges sector and allows market forces to meet the demand for vocationally driven programming.

### 5.1 Differentiation

It is acknowledged that Ontario universities are somewhat differentiated and the Province seeks to increase the extent of diversity in its higher education system. Ontario universities are currently differentiated on several dimensions: by size (e.g. The University of Toronto has over 77,000 students in 2014-15 as compared to Algoma's almost 1,200 students), by program offerings (e.g. not all universities offer nursing programs and not all offer professional programs like medicine, dentistry and pharmacy), by mission (the extent to which an institution focuses on research, teaching and community service), by the composition of their student body (e.g. proportion of graduate and undergraduate students or the extent of Indigenous, First Generation, Francophone and students with disabilities), and in the way universities deliver their course offerings (e.g. traditional lecture, experiential learning, on-line, or cooperative education).

The Ontario college sector is also differentiated by their nature as they offer programs that specifically serve their unique local communities and offer vocational certificates (including graduate certificates), diplomas, while half of the colleges offer baccalaureate degrees, all in support of their local economies. The sector is also differentiated by other dimensions: by size (Humber has over 18,000 funded students in 2011-12 as compared to Boréal's 1,366 students), by applied funded research activity, a relatively new and minor activity for colleges (Hicks, Weingarten, Jonker and Liu, 2013). However, very little attention has been given to the extent of diversity in Ontario's college sector as these institutions, by their very own nature, immediately contributed to increasing the system's systemic and programmatic diversity when they were originally created (Skolnik, 2013).

While the debate about the level of diversity in Ontario's higher education system has recently intensified with the government's adoption of a differentiation framework (see MTCU, 2013), Skolnik (2013) traces the debate about institutional diversity to the second quarter of the nineteenth century where the discussion focused around differentiated funding for postsecondary institutions depending on their denominational affiliation.

Prior to the 2004, Ontario postsecondary education system review, structural higher education changes were suggested by numerous commissions (*Commission to Study the Development of Graduate Programmes in Ontario* (known as the Spinks Commission, 1966), *The Report of the Committee on the Future Role of Universities in Ontario* (known as the Fisher Committee Report, 1981), *Commission on the Future Development of the Universities of Ontario* (known as the Bovey Commission, 1984)), and the *Advisory Panel on Future Directions for Postsecondary Education* (Excellence, Accessibility, Responsibility, 1996) that focused mainly on increasing the extent of systemic and programmatic diversity in the university sector in an effort to increase the levels of teaching and research quality, and accessibility to meet the demands for higher education in a cost effective manner while respecting institutional autonomy. "Policy recommendations

historically revolved around funding levels and program rationalization (mix of programs) to reduce duplication, all within a context of respecting institutional autonomy, rejecting central planning functions while increasing competition, and enhancing cooperation and collaboration amongst postsecondary institutions” (Piché and Jones, 2016, p. 3).

More recently, former Ontario premier Bob Rae undertook a review of the public postsecondary education system with a focus on increasing access to postsecondary education, improving quality and accountability combined with examining the design and structure of the current system. Rae encouraged the promotion of institutional diversity as a means of reducing duplication “through the tuition framework, accountability arrangements and the design of the province’s funding formula” (Rae, 2005, p. 41). He also recognized that as institutions become more specialized, students require clearer pathways and enhanced credit transfer arrangements.

Several studies have suggested structural recommendations through increased institutional differentiation. Jones and Skolnik (2009) called for increased differentiation through the creation of an undergraduate teaching-focused sector (mainly located in the GTA due to the demand for baccalaureate education in that region) that would differ from colleges and existing universities while enhancing pathways for college students to attain a baccalaureate degree and possibly attend graduate school if they so choose. This study also recommended the creation of a specialized open university, and an increased role for colleges in providing baccalaureate education and more efficient transfer system for university arts and science subjects.

The Ministry of Training Colleges and Universities requested advice from the Higher Education Quality Council of Ontario (HEQCO) that led to the development of a roadmap to increase diversity in Ontario’s postsecondary education system during a period of fiscal restraint. Weingarten and Deller (2010) acknowledged that the university sector is currently differentiated by programmes that serve a variety of regions but noted that differentiation can only be achieved if teaching, research and community service are valued equally by government. Differentiation can best be achieved through comprehensive agreements between government and institutions that lay out institutional priorities, goals and areas of future growth. It was also recommended that incentive funding obtained through competition that is tied to desired government outcomes be used as the key lever to enable differentiation.

Over the years, two different approaches have been suggested in the literature to increase institutional diversity in Ontario’s university sector.

The first is to increase diversity through the creation of new institutional types (teaching-focused universities, an open university) or expand the role of existing institutions (such as colleges) thereby increasing access while also contributing to greater efficiencies in the provision of degree programs...The second approach, which now dominates the Ontario policy debate is to increase diversity within the existing array of institutions through incentives and mandate agreements designed to stimulate differentiation (Piché and Jones, 2016, p. 13).

While these recommendations mainly focused on the provincial government policy environment, from a federal perspective, Ontario universities received significant research funding mainly through the national granting councils and academic salary support through the Canada Research Chairs Program. Research funding is provided through a peer review based, competitive process and differentiates universities by the extent of their research intensity. This research funding mechanism supports “existing research strengths and encouraged diversification in the university sector in Ontario” (Piché, 2015b, p. 59). While the salary support funding is mainly distributed based on an institution’s ability to attract national granting council funding, it ensures that all universities receive funding for at least one chair, thereby encouraging all universities to be more research intensive (Piché, 2015b).

## 5.2 Student mobility

The sister initiatives of articulation and credit transfer emphasize the elimination of the need for duplicative learning through the encouragement of institutions to deploy more rigor and transparency to the process of recognizing prior *formal* learning through the use and consideration of learning outcomes, both at the course and program levels.

The emphasis on the word “formal” here is intended to draw attention to the simultaneous rise and encouragement of the adoption of additional mechanisms that recognize prior learning that takes place in more informal settings. Prior Learning and Assessment Recognition, or PLAR, is defined as a process constituting a “combination of demonstrations, challenges, and the presentation of the personal portfolio, allowing learning outcomes to be translated into academic credit” (Thomas, 2001, p. 9).

The reason for noting this concurrent rise and interest in widening the use of PLAR, on the one hand, and a system of credit transfer and articulation agreements on the other, is that they all rest upon the formal development of processes and mechanisms designed to establish the value and equivalency of acquired learning outcomes at the course and program levels. Although Thomas, Collins and Plett (2002) have characterized PLAR as a process designed to transform private knowledge into something that is publicly recognized, it is also premised on a self-conscious and intentional consideration of what has been learned in another, sometimes very different learning context. All these exercises of establishing equivalency draw heavily on the currency of learning outcomes – in order to reduce duplication in learning and the costs involved thereof – the costs to students, institutions and government.

Today, articulation and transfer are also regarded as tools to provide a mechanism of greater collaboration and cooperation between and among universities and colleges, particularly in a context of resource containment (Weingarten and Deller, 2010). Ontario is among a handful of provinces in which college sectors were designed with the express intention of providing an alternative education to university (Lang, 2009; Skolnik, 2005). However, that is not the case for all Canadian provinces. Those such as Alberta, British Columbia, and Quebec, feature a formally mandated transfer role that explicitly prepares the college graduate for entry into university-level study (Dennison & Gallagher, 1986; Gallagher & Dennison, 1995). Curriculum development and program design, therefore, are driven largely with the university curriculum in mind, and attempt to prepare the graduate for future university study. However, as will be explored below in this paper, Ontario – and notably, Manitoba – has engaged in a fair amount of work in order to make the transition to degree level study possible after successful completion of a college-level credential (Skolnik, 2004).

As documented extensively by Kirby (2007), the first inter-institutional collaborative programs were created for nursing education, in part a result of the 1993 call issued by the Ontario Nurses Association (ONA) that all of its nurse practitioners hold baccalaureate degrees by the year 2000 (ONA, 2016). In response to the NDP’s interest in supporting the resurgence of the Nursing Practitioner credential, ONA called upon the government to support the improvement and expansion of the transferability of academic credits, “while ensuring the appropriate attainment of college diplomas and university degrees” (ONA, 2016). The articulation model of college-university nursing education was regarded by nurses themselves as the most appropriate way the profession could deal with the upgrading required by many of its members, in a cost-effective way that minimized duplication in learning.

With the transition from diploma entry-level to degree entry-level education for Registered Nurses (RNs), a collaborative program model that brings together independent college and university

programs has been widely adopted as a preferred model for baccalaureate nursing programs across Canada (Kirby, 2008, p. 2).

In terms of articulation and transfer at large, the first of the most ambitious calls for enhanced opportunities for student mobility in the province was issued in 1990, in the document “Vision 2000”, in which the author, Charles Pascal, restated what he considered the greatest flaw of the PSE system in the province: that it was created with the explicit intention of providing a fundamentally different type of educational experience; and that such intentionality had created a profound challenge to student movement between and among the two institution types.

Some have suggested that CAAT system founder William Davis left open the possibility of student movement from college to university, as the policy notes accompanying the creation of the college sector stated that “no able and qualified student should be prevented from going on from a College of Applied Arts and Technology to a university” (Davis, 1967, pp.13-14). However, another, equally plausible interpretation is that the government was simply drawing attention to the lack of intention behind the “streaming” effect that the structure of the system would have, or that college students were simply in any way prohibited from applying to university. Colleges were intended to provide an alternate, more efficient and cost-effective option for working-class Ontarians.

Nonetheless, *Vision 2000* called for an expansion and increase in the number of opportunities for students to move with greater ease between and among provincial PSE institutions, particularly through the mechanism of credit transfer (for fuller treatments of policy reviews, consult Dennison, 1995; and Fisher, Rubenson, Shanahan & Trottier, 2014). Two components of *Vision 2000* that were adopted by government that had relevance to the development of articulation and credit transfer in Ontario were: The establishment of the College Standards and Accreditation Council (CSAC) and the development of a guide devoted to assisting colleges craft and adopt their own prior learning and assessment mechanisms, to be operated fully independently at each college (Smith, 1996).

Like *Vision 2000*, Pitman ‘s (1993) report titled “No Dead Ends: Ontario Task Force on Advanced Training” (also known as the Pitman Report), addressed what was habitually regarded as the major design flaw of Ontario’s system, through a more advanced and systematic mechanism of credit recognition. In the next few years, the provinces agreed, through the Council of Ministers of Education (CMEC), to issue a Pan-Canadian Protocol on the transferability of credits, with a view to increasing inter-provincial student mobility (1995). Although the spirit of the agreement was well intentioned, the co-ordination of 10 distinct provincial systems of higher education to join forces to improve student mobility was more relevant as a statement of interprovincial goodwill rather than a set of marching orders to regional bureaucracies. In other words, the set of principles was rooted in a sense of aspiration rather than short or medium-term action plans. By 1994, the provincial government had shifted its focus somewhat, with attention squarely situated on the institutions and their processes, rather than on individual courses having some basic transferable qualities. The emphasis was also on the perceived need for colleges and universities to work together to achieve both a level of cost savings as well as serve what was perceived as a growing demand on the part of students – and perhaps employers – for a skill set that was best achieved through a program of study that combined the technical skills of a college education and the theoretical skills of university training. That same year, the government opted to support pathway development through a voluntary body of colleges and universities called the College-University Consortium Council (CUCC).

Further pressure on improving student mobility emerged from the recommendations of a panel convened in 1995 on the future of postsecondary education under the recently elected Progressive Conservative government of Mike Harris. Although the report clearly had terms assigned to it along the lines of how best the system could deliver more results with fewer resources (the theme of most government policy reports



throughout the 1990s), the panel called for a few fairly dramatic changes to the way in which colleges and universities were financed during that decade. It was within that environment – the deregulation of tuition fees, the cuts to student aid and operating support of up to 20 per cent – that changes were needed to facilitate the movement and mobility of students between the college and university sectors (Young, 2001). In the words of the panel, without some significant changes to the way the system was resourced, colleges and universities would not be able to deliver the types of programming expected of them by students, government and employers alike. Specifically, the panel noted the “need to remove unnecessary barriers to students wishing to transfer among [colleges and universities] and also to the sharing of services and facilities” (MTCU, 1996).

As part of acting concretely on some of the recommendations of the Smith Report, the government also funded the development and distribution of a key communication piece – for the benefit of students and institutions – in the form of a transfer guide available for students. It copied in both form and function similar communication vehicles used in other jurisdictions with highly developed transfer and articulation regimes; namely, British Columbia and Alberta.

Little happened on this particular policy front in the years from 1996 to 2003, although CUCC established a number of initiatives in the sector, many of which involved two or three institutional partners. The total number of projects was impressive, as such activity was voluntary, and had not yet emerged as such a highly emphasized institutional focus. However, much of the activity was not coordinated at the system level and knowledge transfer was one of the downfalls of the voluntary nature of membership and involvement with the CUCC and the activity it supported. It did, however, lead to a number of innovative experiments with articulation arrangements, as well as shared programming, and played a key role in the challenges facing the nursing profession, as outlined above.

In terms of credit transfer and articulation, government also focused increasing attention on the college sector, where it could make its mark more effectively, given its great role in managing and governing that sector. Its management role extended beyond funding and policy to its hands-on role in regulating curriculum, the result being that college-based programming was far more similar from institution to institution due to external forces on program offerings and content. The result was the creation of a Transfer and Mobility Protocol for College-to-College transfer in 2003.

Through the mid-2000s, further movement took place, as former Premier Bob Rae called for greater progress related to facilitating student mobility; provinces formed a national umbrella group – the Pan Canadian Consortium on Admissions and Transfer. It was seen as a vehicle for organizing national activities, goals and statements of an aspirational tone; however, since its members exhibited such variation in the nature and structure of their postsecondary systems, it lacks the formal authority to advance the agenda too dramatically.

Credit transfer and articulation, including the broad goal of “student mobility,” took somewhat of a back seat to the trinity of “access, quality, and accountability” that characterized the *Reaching Higher* Agenda. This was partly due to the fact that this agenda was about spending, not about seeking administrative and other efficiencies. However, once the spending associated with the *Reaching Higher* agenda had subsided, government turned toward a second wave of policy goals, arguably more motivated by realized system efficiencies and long-term sustainability, as well as addressing some of perceived systemic flaws. This included furthering the progress on differentiation, accountability (through the Multi-Year Accountability Agreement renewal process), and credit transfer and articulation, among others.

In order to speed up the process improving student mobility, the Ministry established a successor body to the College-University Consortium Council (CUCC). In the following year (2009), the Credit Transfer Steering

Committee was created, made up of sector representatives, to advise government on how credit transfer and articulation should and could be facilitated, as well as an additional committee (Technical Working Group) to recommend how success would be reflected in an appropriate set of performance indicators. The latter body helped inform the Credit Transfer Accountability Framework.

Several years after the government sought internal approval to allocate funding to create a successor body that would further support student mobility, it created the Ontario Council on Articulation and Transfer (ONCAT). The arm's length agency was established to enhance student pathways and reduce barriers for students looking to transfer among Ontario's 44 publicly funded postsecondary institutions. It was "created as a member-driven organization to work with all publicly funded colleges and universities to enable the system of credit transfer to develop as rapidly as possible, while also respecting institutional autonomy" (ONCAT, 2013, p. 3).

Ontario will have a comprehensive, transparent and consistently applied credit transfer system that will improve student pathways and mobility, support student success and make Ontario a postsecondary education destination of choice. The credit transfer system will assist qualified students move between postsecondary institutions and programs without repeating prior and relevant learning (MTCU, 2011).

In a 2013 policy paper, ONCAT stated its purpose was to help expand student mobility in the province of Ontario by nurturing the creation of new pathways; work with institutions to create clearer guidelines concerning their policies and practices ("communications"); and advise on the development of mechanisms that would help generate better data on the tracking and movement of students through the provincial postsecondary system.

In systems like Ontario where articulation agreements and other forms of partnership tend to connect fairly autonomous institutions, the processes involved and the incentives offered are very different than they are in those provinces where cooperation is high and articulation and transfer practices are further along. Part of what makes the expectations of co-operative behaviour by governments is that government itself sometimes relays contradictory messages to institutions. Government creates both policy and operational levers designed to induce cooperation (special funding for articulation agreements) and others designed to support competitive behaviours (matching programs in which institutions compete, often, for the allocation of private funds) (Young, 2002).

Given this challenging environment, Boggs and Trick deploy a unique lens to the challenges faced by Ontario institutions when expected to forge co-operative relationships with one another within this funding and policy context, and begin their study with the following observation: "Studies show that between 50 and 70 per cent of joint ventures do not succeed" (Park & Russo, 1996; as cited in Boggs & Trick, 2009).

The following are the key factors and dynamics drawn from the work of Boggs and Trick (2009) that are part of the prospective partners' process of determining whether or not partnership is prudent, beneficial or counter to the interests of an organization. They are extremely relevant to the specter of an articulation agreement:

- Uncertainty and immeasurability – this notion underlies the doubts and fears that either or both parties feel about the quality of the other's contribution to the partnership.
- Third party effects – the impact upon relationships with other organizations as a consequence of forming a cooperative arrangement (government, funding agencies, competitors, etc.).



- Disincentives to share gains (and risk!) – the potential to overstate the costs or share/burden of the partnership so that the contributions by the two partnership are inaccurately reported;
- Enforcement difficulties – finding the appropriate dispute mechanisms in the event of a dispute or difference in interpreting a contractual element;
- Uncertainty about external authorities – the role of external agencies to facilitate or erect barriers to cooperation between two parties.

As Axelrod (1984) noted,

Without the shadow of the future, cooperation becomes impossible to sustain. Thus, the role of 'time perspectives' is critical in the maintenance of cooperation. When the interaction is likely to continue for a long time, and the players care enough about their future together, the conditions are ripe for the emergence and maintenance of cooperation (pp. 181-182).

### 5.3 Strategic mandate agreements

The province launched its initial strategic mandate agreement (SMA) process with Ontario universities and colleges in 2012 as a mechanism to increase institutional diversity by focusing on institutional strengths and to inform future funding allocations and program approvals.

The Higher Education Quality Council of Ontario was asked to establish an expert peer review panel to evaluate these initial SMAs in an effort to identify institutions that would have the ability to improve productivity, quality and affordability through innovation and differentiation. Funding allocations would be recommended for 2013-14. Unfortunately, the panel chose not to make funding recommendations as "there was not sufficient diversity among mandate agreements, particularly when examined within each of the college and university sectors, to allow for identification of some institutions as leads" (Higher Education Quality Council of Ontario, 2013, p. 6) and instead chose to advise the government on the various themes extracted from the SMAs.

In late 2013, the Ministry called for revised SMAs (2014-15 to 2016-17) to be developed within the context of Ontario's differentiation policy framework which had been released in November 2013. Institutions were required to highlight their areas of institutional strengths under each of the government priorities of jobs, innovation and economic development; teaching and learning; improve access, retention, and success to postsecondary education for underrepresented groups (Aboriginal, First Generation, Students with Disabilities) and Francophones; research; the breadth of programming, enrolment and credentials offered; initiatives in student mobility; and identify future aspirations. Institutional and system-wide metrics were also developed to monitor performance over time. Once institutions submitted their revised SMAs, the province requested institutions to work with a Special Advisor to the Minister, to complete the SMA process by March 31, 2014, at which time the SMAs were signed by the institution and the government. "While the first signed SMAs, created cooperatively between the ministry and the institutions, reflect a stronger alignment between institutional aspiration and the evidence of differentiation, it is critical that the next round of SMAs seize the opportunity to move strongly and boldly towards more differentiated missions and strategic pathways" (Jonker & Hicks, 2016, p. 4).

## 6 Methodology and literature review

This study will draw upon several bodies of literature that fall under the rubric of organizational (population ecology, resource dependency, institutional theory) and globalization theories to help explain institutional behaviors and responses to external forces such as government policy (some attached to financial incentives, some not), and how such policy levers can enhance or hinder student mobility and institutional differentiation. Textual analysis of government policies and policy statements, as well as the critical bodies of literature (both Ontario focused as well as international), will be used to shine the light upon the application and operationalization of these two public policy goals.

The study will also examine a selection of articulation agreements between universities and colleges. Relevant institutional characteristics include the type and size of institutions, and the locations of the institutions that are party to the agreement.

The study will also examine the extent to which various institutional types have been engaged in student mobility and will compare and contrast the various strategies used to satisfy this public policy goal. For instance, transfer activity from the fall of 2014 to the fall of 2015 using the Common University Data Ontario (hosted on the Council of Ontario Universities website), which identifies the number of students who applied and enrolled as a degree seeking transfer student. Transfer students are defined as those that attended another postsecondary institution and requested the transfer of credits. Universities were clustered by size (Small: less than 12,000 FTE; Medium: 12,000FTE to 27,000FTE; Large: above 27,000 FTE) and by type using the latest *Maclean's* university ranking classification (primarily undergraduate, comprehensive and medical/doctoral) and by classifying OCAD University and Algoma University as special purpose institutions.

In order to gain insight into the credit transfer analysis, the study reviewed the transfer credit section of the Multi-Year Accountability Agreement (MYAA) report for each Ontario University for the period 2009-10 to 2013-14 in order to gain insights into the mechanisms used by institutions who more successfully participated in the transfer credit system as compared to others. Overall observations were first derived from reviewing the MYAA for the period and drawing out key observations by institution. These key observations were further summarized by cluster of institutions to draw out differences by cluster that may account for the differences in the extent of transfer registration as a percentage of transfer application by cluster. The focus of this analysis is on institutional mechanisms used to increase student mobility and is not an evaluation of student demand.

The MYAA is a publicly available report intended to provide the Government of Ontario with a tool for publicly reporting on the performance of Ontario's postsecondary institutions. With respect to credit transfer, the Ministry is seeking to hold institutions accountable for the level of activity that contributed to maintaining or improving an institution's efforts to develop and enhance credit transfer. While this report has been in place since 2006-7, the focus on credit transfer was first introduced in the 2009-10 MYAA. At that time, institutions were required to report steps taken to enhance the student's "transition experience either from college to university or university to university" and to showcase a "promising practice used to develop and enhance credit transfer." From 2010-11 to 2012-13, institutions were required to report on their progress under the following three main themes, "expanding transfer pathways", "providing support service for transfer students" and "improving transparency and access to information". These categories were eliminated in 2013-14 and institutions were simply required to report on activities that contributed to maintaining or improving an institution's efforts to develop and enhance credit transfer.

## 7 Review of the literature on institutional behaviour

The field of organizational studies can be used as an effective tool to understand institutional responses to government directives from a macro perspective. It is an examination of the relationship between the institution and its environment. This study will draw from organizational and globalization theories to better understand institutional responses to the province's directive to increase diversity and student mobility through its review of policy levers.

It should be acknowledged that external demands for change, such as global forces, can shape organizational change. Clark, Moran, Skolnik, and Trick (2009) observed that global forces helped shaped today's Ontario's higher education system. Institutions are expected to collaborate with industry to increase the country's economic competitiveness and must adopt their programs to prepare a workforce that will assist employers to be globally competitive. Institutions must also adapt their business processes for greater efficiency as government places increased reliance on market and quasi-market forces, thereby increasing competition for resources while placing restriction on degree granting. Levin (2004) made use of globalization theory (global marketplace is the driver of organizational change) to explain the rationale for baccalaureate-degree granting in Canadian and American community colleges. Levin suggested that external demands (demands from economic marketplace beyond vocational training) for higher education and training drove institutions to alter their missions by offering baccalaureate degrees.

Van Vught's (2008) theoretical framework for explaining diversity and differentiation in higher education systems drew from population ecology, resource dependency and institutional theory. Population ecology focuses "on the sources of variability and homogeneity of organizational forms. It pays considerable attention to population dynamics, especially the processes of competition among diverse organizations for limited resources such as membership, capital and legitimacy" (Hannan and Freeman, 1989, p.13). In this model, "the environment determines which organizations succeed and which fail" (Van Vught, 2008, p.158). This perspective would suggest that organizations need to draw sufficient resources from their environment to survive and when resources are limited and must compete with other organizations to secure sufficient resources. Van Vught (2008) drew on resource dependency perspective, which unlike the population ecology perspective, contend that while organizations are influenced by their environment, they can also influence their environment for their survival. "Competition for scarce resources forces organizations to more or less similar responses, but also that, when confronted with scarcity of resources, organizations may want to try to influence their environmental conditions in order to secure better conditions" (p.161).

Van Vught (2008) drew from institutional theory to explain how institutions tend to act when threatened by a lack of resources. Institutional theory examines the environmental effects of social rules, norms and values that shape organizational behavior. It essentially contends that an organization will take into account the success of other organizations in developing its own structures and processes. Institutional theory "favors local and institutional actors over economic markets and competition as justifiable explanations of organizational action and alteration" (Levin, 2004, p.3). Relying on the work of DiMaggio and Powell (1983) which identified three pressures that lead to greater uniformity of institutions – mimetic isomorphism (organizations imitating the behavior of successful organizations as they suffer from academic drift, ambiguous goals or uncertainty caused by poorly understood technologies), normative isomorphism (mimicking established professional norms) and coercive isomorphism (pressures from other controlling organizations on which the organization is dependent such as government policies and laws), van Vught (2008) formulated the following two proposition:

the larger the uniformity of the environmental conditions of higher education organizations, the lower the level of diversity of the higher education system...[and,]... the larger the influence of

academic norms and values in a high education organization, the lower the level of diversity of the higher education system (p. 162).

The following section will draw from organizational and globalization theory to inform some of the discussion of policy levers or drivers that impact institutional differentiation and student mobility as applied by Codling and Meek (2006) and Reichert (2009).

## 8 Policy levers or drivers that impact differentiation and student mobility

Policy makers and institutional leaders are interested in implementing the most effective processes and policies that will increase differentiation and student mobility. The following will draw from international and Canadian experiences and practices to identify both formal and informal methods of achieving differentiation and student mobility.

Formal methods of promoting diversity emphasize the role of state regulation for sustaining the separate institutional types...[while] informal promotion of diversity is realised through inter-institutional competition for people and resources and through soft norms of quality assurance...[with] the underlying assumption of such approaches usually liken HE systems to markets in which institutions compete for resources” (Reichert, 2009, pp. 15-16).

### 8.1 Differentiation

There are a number of key provincial policy mechanisms that can and have been used by the province of Ontario to impact the extent of differentiation, namely the creation of new institutional types (discussed in a previous section), funding and enrolment policies, increased central planning, competition for funding, and the use of strategic mandate agreements (discussed in a previous section).

Universities and colleges in Ontario are mainly funded through government operating grants and student tuition fees, essentially creating a uniform funding regime environment in each sector. The government controls the amount of grant it will allocate through enrolment levels (rewarding enrolment growth while institutions are free to allocate these funds between their teaching, research and community service missions) and funds new initiatives mainly through special-purpose grants. “The funding formulas are the most powerful instruments available to government to steer changes in the system and in the behavior of institutions” (Higher Education Quality Council of Ontario, 2013, p. 14). Domestic tuition fees are regulated by government (provide no incentive for institutions to differentiate their programs by fee levels) while international student fees, some professional and all graduate program fees are deregulated allowing each institution to determine their fee levels.

Special-purpose grants have been used by the province in support of a number of initiatives, including the special missions of northern universities, bilingualism grants to support the offering of more courses in French as well as differentiation grants in support of an institution’s differentiated role including the provision of Aboriginal education. However, these grants accounted for less than 12% of the basic formula grant in 2015.

The recent allocation of graduate (master’s and doctoral) enrolment spaces to universities first started as a result of the 2005 budget announcement followed by a June 2006 announcement by the Ministry of its

graduate expansion plans resulting in graduate enrolment targets being allocated to almost all universities while some research-intensive universities received additional spaces. While, universities in Ontario were previously differentiated by the extent of graduate programs they offered, the allocation of graduate enrolment funding throughout the province decreased the extent of programmatic diversity in the province (Piché, 2014). Fallis (2013) suggested that a subgroup of universities should focus on doctoral education and conduct high quality research across a range of fields while all other universities could focus their attention on undergraduate education and the provision of master's programs.

It should be noted that the Ministry of Advanced Education and Skills Development (MAESD) has recently engaged both the college and university sector around potential changes to the funding formula. In December 2015, MAESD released its report, *Focus on Outcomes, Centre on Students*, outlining the results of extensive consultations with the postsecondary sector on university funding reform and began the process to modernize the funding model for universities. The new funding model is anticipated to better align funding with institutional strengths and other priorities identified in the SMA process. MAESD is also expected to begin the next round of SMA (2017-18 to 2019-20) discussions with institutions in 2017 that would coincide with the implementation of the new funding mechanisms with potentially more competitive performance-based funding while minimizing the funding distribution among institutions.

Codling and Meek (2006) developed twelve propositions on diversity in higher education mainly through their observations of Australia's and New Zealand's higher education systems. They posit, in support of van Vught (2008), that a homogenous environment will promote a lack of diversity or institutional convergence unless the government adopts formal policy interventions to promote diversity and sustain existing differences. They also posit that a uniform funding regime, as the one currently present in Ontario, will promote the convergence of institutions if institutions are not provided with financial incentives with explicit diversity objectives. Piché's (2015b) policy and descriptive analysis of the factors that promoted or hindered diversity and differentiation in Ontario's university sector supported this view and identified the lack of diversity objectives in Ontario's egalitarian operating funding model as a major contributor to the current levels of diversity in the sector. However, the use of federal research grant funding in Canada "distributed on the basis of a peer review, competitive process increased the potential for diversification" p.52. Jonker and Hicks (2016) reinforced that institutions should be funded to provide access to traditionally underrepresented students, and called for a concentration of research resources (including funding for graduate education) into a limited number of research-intensive institutions. Regional universities should also be funded to provide "a balanced set of programs and services with a more moderate research emphasis to their regional demographic and economic base" (p.4).

The need to remain globally competitive, combined with international ranking schemes for higher education resulted in some European countries providing additional funding to a few institutions that are well placed internationally to expand their global research competitiveness. Such initiatives have been introduced in the UK (UK Research Assessment Exercise), Germany (*Exzellenzinitiative*) and in France (Plan Campus) (Reichert, 2009). In Ontario, Piché (2015a) called for separate and distinct funding formulas for each of the three university clusters (University of Toronto, mainly-undergraduate universities and research-intensive universities) while Jonker and Hicks (2016) recommended that the Ontario university sector funding formula should be restructured in such a way to ensure that the University of Toronto "continues to be able to play its unique and powerful flagship role in Ontario" (p.4).

Piché (2015a) and the Higher Education Quality Council of Ontario (HEQCO) also called for increased central planning in Ontario's higher education system. HEQCO noted that "differentiation works best when coordinated and supported at the system level, with a central hand guiding the development of differentiation between the participating institutions...past experience in Ontario suggests that in the absence of a steering hand, institutions drift towards homogeneity more than they strive for diversity"

(Jonker & Hicks, 2016, p.10). The extent and nature of central planning could also have a homogenizing effect. As noted by Birnbaum (1983), central planning can restrict “experimental innovations of institutions their search for fitness. Second, state-level does not reflect knowledge about how institutions adjust to their niches. Third, state-level planning leads to centralization, which paves the way for homogenization of norms, values, and structures and thus decreases diversity” (as quotes by Huisman, 1998, p.83). Any central planning role should therefore be limited to maintaining differences among institutions and avoid homogenization.

Codling and Meek (2006) also drew from the work of Jones (1996) and his Canadian experience to suggest that “the greater the co-operative activity between institutions within a higher education system, the greater the potential for institutional convergence” (p.16). However in Europe, some policymakers and national agencies look to increase cooperation between institutions to reduce fragmentation, duplication and increase economies of scale in differentiated systems. The fragmentation of France’s higher education system comprised of different types of institutions (universities and *grandes écoles*) that are governed by separate authorities and separate regulatory frameworks has been seen as an impediment to their global research competitiveness. France introduced its *poles de recherche et d’enseignement supérieur* that groups institutions of different profiles to invest in shared research infrastructure at regional levels to increase their international research competitiveness. Cooperation among institutional types is also a concern by policymakers in Switzerland, which has three types of higher education institutions, universities, universities of applied sciences (*Fachhochschulen*) and teacher training institutions (*Pädagogische Hochschulen*). Research funds are made available to encourage inter-institutional cooperation in Switzerland and funding “for Doctoral schools is made available on the condition that cooperation between several universities would create sufficient complementarity and critical mass”(Reichert, 2009, p.146).

Academic norms and values have often been identified as a driver of institutional convergence that may undermine institutional and political attempts to increase institutional differentiation. “Thus, competition between higher education institutions should not be seen only as competition for resources but also, through the value system of academic staff and leadership, as competition for stature, prestige and legitimacy” (Reichert, 2009, p.19) that encourage conformity. In Switzerland, different academic norms and values firmly support the separate roles of its three sectors. Reichert (2009) noted no tendency of academics in universities of applied sciences “to emulate university values and behavior in terms of shifting weights to basic research performance or more theoretical education programmes” (p.107). This lack of tendency to emulate universities was attributed to the hiring criteria in universities of applied sciences that emphasize professional experience in their academic appointments. In France, the separation of universities and *grandes écoles* is maintained by two parallel values of ensuring egalitarian access while maintaining elite education. In Ontario, academic norms and values of quality, reputation, academic freedom and institutional autonomy “may work so strongly against specialization that it could be argued that little can be done to move any of them (universities) toward specialization” (Clark, Moran, Skolnik and Trick, 2009, p.178).

## 8.2 Student mobility

The ability of students to move from institution to institution, or from program to program, signals that a higher education system is structured in such a way that maximizes choice for students, as well as a fairly straightforward way to correct an initial error in institution or program choice. The number one priority of any educational system – starting with elementary and secondary streams, and the transition to postsecondary education – is to create curriculum and co-curricular programming that helps students make informed PSE choice and this help ensure a good fit between student and program choice. This, in itself, is extraordinarily challenging, as so many factors and life circumstances get in the way of young people knowing what they want to do, or better yet, what they are capable of, when it comes to their career and vocational educational aspirations.



Student mobility is one way public policy makers see an answer to the challenge of program choice. Students' ability to take corrective action when they feel they have made an incorrect initial choice – that they have had sufficient PSE experience to know what program is right for them – is an important principal that should be a feature of any accessible and equitable system of higher education.

Although it is not the focus of this paper, student assistance programs are one important lever in helping improve – or in some cases impede – the degree and facility of student transfer. Student aid policies such as eligibility term limits, loan limits, limits on program switching, bridging programming eligibility and the like all either help or hinder student's ability to take corrective action in addressing a bad first choice when it comes to their PSE career.

Under the current OSAP regime, eligible students – those studying away from home – are entitled to receive a “distance” grant, a standard amount of \$500 per term up to \$1,500 for a three-term academic year. The criteria for the grant include:

- Attendance at a publicly-assisted college or university in Ontario.
- One of the following describes the applicant:
  - You're a “dependent student” (i.e., parental information was required for your *OSAP Application for Full-Time Students*) and you're living with your parent(s) during your study period.
  - You're an “independent student” (e.g. you have been out of high school for at least 4 years and you do not have a spouse and/or dependent children) and you're living with your parent(s) during your study period.
  - You're married or in a common-law relationship.
  - You're a sole-support parent.
- The student has been assessed as having at least \$1.00 of financial need under the Ontario portion of the [Canada-Ontario Integrated Student Loan](#).
- The student's home address is 80 km or more from the closest publicly-assisted Ontario postsecondary school that matches the school type you are attending (i.e., 80 km from a college if you are a college student, 80 km from a university if you are a university student). (*See exemption for Francophone students, below*).

If a student has self-identified as being a Francophone student on your OSAP student profile, the student may still be considered for this grant if there's a publicly-assisted college or university within 80 km of your home but it doesn't deliver your program of study in French. This grant implicitly recognizes that, in a differentiated world, not all programs will be located within a student's easy commuting distance. Relocation may be necessary. Although this is potentially more troubling when considering the mandate of the college sector and the role that institution type is supposed to play in the economic life and vibrancy of the community in which it is situated, university programs may be distributed in such a way that requires relocation for studies.

There are, however, other less obvious policies that can impede both the student mobility and life-long learning agendas that are both so dominant in 21<sup>st</sup> century discussions of the purpose of higher education. For instance, repayment and rehabilitation rules that stipulate the rules around re-applying for student assistance either once a borrower goes into repayment – or worse, defaults on their loans – can mean either students are shut out forever from re-engaging in postsecondary education or make re-entry so daunting that it simply doesn't appear to be an option. This may be particularly true for those students who are or were not able to take quick corrective action – those that dropped out of their PSE programs with no credential but responsible for repayable student aid. If we were to regard student mobility in its broadest notion, the ability to re-engage in a program of true interest (or a program that better matches their abilities)

later in life, without having to cope with insurmountable barriers, is also a facet of a PSE system that facilitates student mobility.

In addition to the functions that high schools and community-based programming performs in helping students understand the array of PSE choice, with the goal of making a good initial decision, policy change that helps facilitate student mobility once students are in the system is another way public policy see as another way to ensure that good fit. Students' ability to take corrective action after making what they regard as an incorrect initial choice – or that they have had sufficient PSE experience to know what program is right for them – is an important principal that should be a feature of any accessible and equitable system of higher education. This is also an important feature of a system that boasts any sort of potential for student mobility.

Another significant policy lever developed in the last seven years is the Credit Transfer Institutional Grant (CTIG). Eligible activities under the CTIG includes funding for the development and/or renewal of articulation agreements – including special and/or innovative models of articulation; the extra institutional costs associated with accepting transfer students (for example, extra academic advising services, or data management personnel where there is a focus on tracking transfer students); data systems development; and better information provision. Excluded are capital expenses, as well as those activities that have secured funding from ONCAT. The grant is allocated based roughly on the volume of transfer activity at each institution, but is also project-based, insofar as a rationale for how the funds are spent must be provided. Grants range from \$70,000 to approximately \$1M, reflecting, again, the volume of transfer activity.

### 8.3 Intersection of policy levers

Policy levers used to increase differentiation or student mobility have a series of common elements – the role of central planning role of government, the use of financial mechanisms, inter-sector cooperation and collaboration, and competition, which may work against each other. Effective processes and policies that will increase differentiation and student mobility may require the government to take a more central planning role, principally in setting goals and targets, and deploying appropriate funding mechanisms. Institutional convergence will occur if government policies do not sustain current differences among institutions (Jonker & Hicks, 2016; Piché, 2015a; Piché, 2015b; & Weingarten & Deller, 2010). A central guiding hand is also required for the development of student mobility to regulate and adjudicate credit transfer recognition, and mandate cooperation (Boggs & Trick, 2009).

Funding mechanisms can be used to support increased differentiation and student mobility. Institutional differentiation in Ontario can only be increased by “changing the current egalitarian funding model to include more diversity objectives through increased differentiated funding by type of universities” (Piché, 2015b, p. 66). Inter-sector credit transfer arrangements can also be supported with “college and university funding mechanisms that would support and encourage inter-sectoral credit transfer arrangements and joint advanced training programs” (Smith, 1996 as quoted by Hurlihay, 2012), thereby recognizing both colleges and universities for their role in promoting and encouraging student mobility. Trick (2013) suggests that policymakers establish clear and quantifiable transfer targets for universities by providing them with the right incentives in the form of funding “university seats reserved for qualified transfer students” (p.4).

Inter-sector collaboration of institutions in the planning and delivery of programs is a fundamental tenet of a more expansive system of institutional articulation. However, cooperation and collaboration among institutions may lead to a decrease in systemic and programmatic diversity (Jones, 1996). “Inter-institutional cooperation can lead to more standardization and less diversity in the delivery of public higher education” (Lang, 2002, p. 181). However, collaboration may also be viewed as a way institutions perform separate functions that complement but do not duplicate.



Creating a competitive environment between colleges and universities may work against increasing differentiation and student mobility. The creation of a competitive environment in a period of high resource flow will generally promote the convergence of institutions as institutions have the financial resources to mimic each other (Codling & Meek, 2006). Also, the competition for students seeking degree studies has led universities in Ontario to introduce career-oriented programs (reducing the level of programmatic diversity) that directly compete with degree programs offered at colleges. The need to compete for resources (resource dependency) may in fact restrict the extent of collaboration between institutions, thereby reducing opportunities for student mobility (Trick, 2013).

## 9 Articulation case study analysis

### 9.1 Development and renewal of articulation agreements – A sample process

A detailed account of how one small, specialized institution outlined its process for developing articulation agreements had been documented in a prior ONCAT-supported research project (Young et al., 2016). It will be outlined here, as one example of the many ways in which institutions approach this business process. However, it is sufficient in demonstrating the number of offices potentially involved in this process, as well as the types of institutional personnel that weigh in on the process. For this reason, it provides valuable insight into the scope and work involved in developing articulation agreements.

In the academic year 2015, OCAD University (OCAD U) developed a business process for the development and renewal of articulation agreements, intended to increase the clarity in the roles and responsibilities of the various offices involved. The exercise was led by the Office of the Associate Vice-President, Students, in collaboration with members of the Admission, Recruitment & Retention Committee and the Faculty and Curriculum Development Centre (FCDC). It covered all stages of developing such agreements, including their initial proposal, development, implementation, and assessment of articulation agreements and student transfer pathways. It also stipulates what offices or units are involved in all aspects of the process.

First is the proposal stage; second, the development stage; the phase of drafting and agreement and seeking institutional approval; and implementation. The last includes the maintenance of the agreement and the relationships that are involved, as well as what is ideally an efficiently handled phase of either cancellation or extension.

The business document notes that the identification of ideal articulation processes can arise from a variety of scenarios, and equally often result from inquiries made from other institutions where there appears to be a high demand for “destination programming” from college students who have recently completed a diploma or advanced diploma. It also may flow from professional associations from teacher-artists and/or academic administrators at the decanal or chair level. Proposals are developed (such as a process for establishing or elaborating on the nature of the affinity of the program), which then require approval by the relevant dean and the Vice-president, Academic.

In the initial stages of development, the admissions officer collects the relevant information, including all the up-to-date syllabi of the originating programs, as well as any user data that can be collected (such as historical enrolment patterns of students coming from the proposed destination program to OCAD U, as well as “success rates”).

The Vice-president, Academic, the Assistant Vice-president of students and the relevant deans from both OCAD U and the originating institution then meet to discuss the appetite for partnership, the potential programs being considered for articulation, as well as an overview of each institution. The Admissions officer will take the lead in setting up the meeting and establishing the particulars of the agenda.

Then begins a process referred to as “assessment,” which includes the consideration of the course content in the form of program guides, course syllabi, co-op requirement, if relevant, and samples of work by graduating students to provide the commitment with a sense of the skills and strengths of the graduates of the potential incoming program. The assessment team at this stage expands to include the Faculty and Curriculum Development Centre, as that is where the expertise sits at OCAD U in terms of program mapping on the basis of course and program learning outcomes. After this phase of the review, a series of site visits are arranged.

For the third major phase – “curriculum mapping and pathways design” – the educational developer in FCDC, in partnership with the departmental chair or designated faculty member, will begin the process of detailed curriculum mapping. Once the pathway is established, the agreement is drafted by the FCDC. Both the map and student pathway are included with the agreement (normally two pages) and constitute part of the agreement. (However, it varies from institution to institution, there is a fair amount of discretion as to how much of the document is student-facing.) The FCDC then meets with the associate dean, chair or designated academic to review the established equivalencies.

In what often becomes a separate, “parallel” process, the exercise of establishing equivalencies for the Liberal Arts and Science courses take place, under the leadership of the FCDC and the associate chair of the faculty. This part of the process can sometimes be the most complicated since it is where equivalencies become the most difficulty to establish, and often tend to result in determining, on a case-by-case basis, precisely how much course credit a student will be awarded upon entering OCAD U. It also tends to in part inform the degree to which the articulation student will require in individual program and academic advising because it tends to rest on the individual students’ previous course choices regarding fulfilling program breadth requirements in often college-based General Education programs.

At this stage, the registrar’s office begins its review, identifying any potential issues and returns the agreement to FCDC to resolve those issues with the relevant academic units. In terms of the substance of the agreement, OCAD U embeds its admissions requirements (GPA and portfolio requirements); length of the agreement, renewal terms, and institutional contacts.

Once it is ready for institutional approvals (once the terms have been mutually agreed upon), the agreement and supporting documentation (all relevant appendixes that establish all the relevant course equivalencies, both program and breadth), are returned to the AVP students, the Vice-president Academic, the registrar and Admissions and Recruitment for final review. It is then submitted by the relevant associate dean or program chair for consideration at Senate at its February meeting.

There are three phases to the next round of activity, during which the agreement is implemented: communication, recruitment and student support. Communications are required between partnering institutions and programs; with students, throughout the various offices and services areas of both the partnering institutions, and with the Ontario Articulation and Transfer Guide and database.

This last phase should be the most efficient and straightforward: renewal. The renewal phase should reflect the demand on the part of students (as an average over the life-time of the agreement), and the continuation of the programs that are part of the agreement (whether they remain core programming and within scope of the institution’s strategic and academic plans). Student data, major program changes and any plans to either

change, continue or discontinue the program should be communicated as early as possible between partnering institutions and ideally part of the on-going dialogue between the partnering institutions. This will minimize the disruption of student expectations and render unnecessary any or duplicative activity which could constitute and/or complicate the renewal process. Currently, the three phases of the final stage (“Maintenance and Renewals”) involve: notification of agreement end date; re-assessment; and agreement renewal and approval.

## 9.2 Current pattern of articulation agreements

The purpose of this part of the larger analysis is to identify the pattern to date of the development of articulation agreements across the province of Ontario, not to gauge current demand or anticipate future interest on the part of students. As such, this part of the analysis does not provide a global view of either the number of articulation agreements active in the province, or the number of students currently anticipating in such arrangements. It is, rather, to examine a sampling of a number of agreements, and to determine if possible, whether the nature of articulation activity can at all be explained by university type. It is, rather, a consideration of what types of institutions (by size and type) tend to partner, and why. This exercise is, however, highly relevant to the goal of establishing what purposes are served by entering into such partnerships, and how they fit into a system being shepherded in the direction of further differentiation.

Table 1 contains a sampling of 267 articulation agreements involving six receiving institutions (universities). The chart includes only those agreements between publicly assisted institutions in the province of Ontario. The receiving institution is characterized in column A by their geographic location. (Column B is self-explanatory) Column C characterizes the classification of the institution that includes reference to both the size (small, medium or large), as well as type of institution (special purpose, primarily undergraduate, comprehensive and medical/doctoral). Column D represents the number of articulation agreement (in brackets) for each agreement with an Ontario college. Column E is a characterization of the distance between the sending and receiving institution as either proximate (within 60 km) or not.

Most of the agreements identified above are bi-lateral arrangements (between one college and one university), while a smaller number are multi-lateral (university has an agreement with several sending colleges). One institution has effectively created a web of multi-lateral arrangements for such programs that meet province-wide standards and content are consistent across the college sector. Other general observations include:

**Table 1**

### **Selected Ontario College/University articulation agreements by region, institutional type and distance between partnering institution, 2016-17**

A	B	C	D	E
Region	Receiving institution	Classification	Sending institutions (Ontario only)	Within 60K of B?
GTA	University of Toronto	Large/ Medical Doctoral	Seneca – (St. George) (1) Humber – (St. George) (1) George Brown (Mississauga) (1) Mohawk (Mississauga) (1) Niagara (Mississauga) (1) Sheridan (Mississauga) (1) Seneca (Scarborough) (1)	Y Y Y Y N Y Y
GTA	OCAD U	Small/ Special Purpose	Humber (3) Fleming (3) Fanshawe (3) George Brown (2)	Y N N Y
South West	Western	Large/ Medical Doctoral	Fanshawe (17) Lambton (5)	Y Y

South-West	Brock	Medium/ Comprehensive	Algonquin (8)	N
			Cambrian (5)	N
			Canadore (6)	N
			Centennial (8)	N
			Conestoga (4)	N
			Confederation (6)	N
			College Boreal (4)	N
			Durham (6)	N
			Fanshawe (15)	N
			Fleming (8)	N
			GBC (5)	N
			Georgian (10)	N
			Humber (8)	N
			La Cite (5)	N
			Lambton (7)	N
			Loyalist (5)	N
			Mohawk (15)	N
			Niagara (17)	Y
			Northern (5)	N
			Sault (5)	N
Seneca (5)	N			
Sheridan (9)	N			
St. Clair (6)	N			
S. Lawrence (4)	N			
Central	Guelph	Medium/ Comprehensive	Algonquin (1)	N
			Centennial (1)	N
			Conestoga (1)	N
			Fanshawe (1)	N
			Georgian (1)	N
			Humber (1)	Y
			Niagara (1)	N
			Seneca (1)	N
East	Carleton	Medium/ Comprehensive	Algonquin (28)	Y
Northern	Lakehead	Small/ Primarily Undergraduate	Confederation (9)	Y
			Algonquin (1)	N
			Fleming (1)	N
			Seneca (1)	N
Georgian (3)	N			
<b>TOTAL</b>			<b>267</b>	<b>Y = 87/267 (32.6%)</b>

- For one medium-sized, comprehensive institution, only 17 of 176 agreements are with a local institution and involve one of the university's strongest programs. It also has agreements with all 24 publicly assisted colleges, many of which create a degree pathway for college graduates in programs that do not differ in terms of content across the college sector. These programs include: policing foundations, early childhood education, business administration, dental hygiene and other human health sciences programs, social service worker and recreation and leisure;
- For another medium-sized comprehensive institution, all 28 agreements are with a local institution;
- For one small and specialized institution, all agreements are program specific (high affinity programs); half are local and half are not;
- For one large medical/doctoral institution, most agreements are local (6 of 7) and 5 of 7 are held at the mainly undergraduate campuses at Mississauga and Scarborough;
- For a smaller primarily undergraduate university, agreements in high affinity programs speak to the institutional strengths of the receiving institution. It also focuses most of its articulation agreement activity with one local college;
- A fraction of the agreements shown in the table (32.6%) are forged between institutions that within 60 km in proximity with one another.

Table 1 also illustrates the variety of strategies that institutions utilize when it comes to supporting the broader public policy goal of student mobility. In the case of Western University, the institution has chosen to develop a broad array of agreements with a small number of colleges involving “receiving” programs that represent that institution’s strengths. They are also of relative geographical proximity. This approach allows students attending their local college to contemplate a move into a degree program within commuting distance of their home, and therefore provides students with an option that involves less disruption and lower cost. Six of their 17 agreements with Fanshawe are in two areas of programming; business and broadcasting, which is consistent with the university’s current areas of academic strength (and which are also academic activities that have been cited in their Strategic Mandate Agreements as central to both their current and future focus). In this way, those partnerships speak to both the local needs of their students and broadening programming to students in that region, consistent with the nature of the institution’s specialization.

Although Carleton has created a number of degree pathways with partnering colleges, it has focused its pursuit of articulation agreement almost exclusively with the local college, in recognition of the potential needs of the surrounding pool of PSE students wishing to pursue a degree after completion of their college studies.

Since this selection of 267 articulation agreements were examined for characteristics that did not include student demand (in other words, we are unable to determine how many students take advantage of these specific arrangements), we are therefore not able to adjudicate their quality, either as a way of promoting their programs of academic strength, or managing the challenges associated with enrolment fluctuations. What this analysis allows, however, is an opportunity to see how universities choose to support student mobility in a way that reflects or reinforces their size, program type and enrolment challenges. With respect to the latter, several institutional patterns are worthy of note: Brock University and Lakehead University. Both institutions are located in regions that pose some major demographic challenges in terms of the decreasing pool of potential applicants in the region (Weingarten, Hicks, Jonker and Moran, 2017). In the case of Brock, it has astutely developed articulation agreements with all Ontario colleges that offer programs of high affinity with some of its Bachelor of Arts degrees, while recognizing the value of the system-wide standards and content of these college-based programs, which allows the university to create a web of pathways. In this way, Brock is attempting to broaden its applicant pool to include college degree holders from across the province.

In terms of Lakehead University, it has focused the majority of its articulation agreement activity on developing pathways from its proximate college (as in the case of Carleton). A number of program “ladders” have been created for graduates of Confederation College, allowing them to pursue degree options potentially within commuting distance of home (assuming that those attending the college are living at their permanent residence). This serves to expand student choice without a relocation requirement.

At the other end of the spectrum, we see the University of Toronto has pursued fewer articulation agreements proportionate to its size than the other universities featured in this study. When the demographic trends for the Greater Toronto Area are considered, this makes some sense: U of T is less concerned about compensating for decreases in the application rate, since its applicant pool is very strong both locally and beyond. And when the activity in the above chart is compared with that as described in U of T’s most recent Strategic Mandate Agreement, the document is suggestive that perhaps credit transfer processes are the more favored student mobility tool rather than entering into various articulation agreements.

In a recent study carried out by Lennon et al. (2016), a geographic analysis of pathway agreements among Ontario’s colleges and universities revealed a few interesting observations. The results of the study pose the

question of the strategic value of the agreements made, noting that the number of students per articulation agreement remain low, relative to the expense of developing the pathways; and that universities are not more likely to forge such agreements with colleges that are in commuting distance versus those that are not.

Although the purpose of their study focuses on the numbers and types of these pathways – rather than assessing their fit with other public policy goals – the Lennon et al study reveals the same patterns with respect to universities’ tendency to develop articulation agreements using criteria other than student demand or proximity to the sending institution. Strategic partnership-making will take on especial significance in the context of greater differentiation, insofar as partnerships must begin to better reflect student demand and student use – which must also take into account typical participation patterns and institutional proximity. As Lennon notes,

...this report finds that few institutions concentrate on developing agreements with institutions within commuting distance. This is a clear gap, given what other researchers have found regarding the tendency of students to stay within the same geographical area, and regarding the specific challenges and needs of adult students who may have a job and a family to take into account when deciding on postsecondary education” (2016, p. 40-41).

Therefore, if the development of pathways and articulation agreements are intended to nurture student mobility, differentiation and geography are factors to be reconciled.

## 10 Credit transfer analysis

As part of this study, transfer applicants registered were calculated as a percentage of transfer student applications from the fall of 2005 to the fall of 2014, by institution. Institutions were clustered by size (Small, Medium and Large) and by institutional type.

The following table shows the transfer students that registered as a percentage of transfer student applications by institution, clustered by size. Some observations to highlight: small institutions overwhelmingly managed to attract a disproportionate amount of transfer students as compared to medium and large universities averaging 37.4 % over 10 years as compared to 16.3% for medium and 13.3% for large universities. That is, small universities attracted on average 2.3 times more students than medium universities and 2.8 times more students than large universities. OCAD University and Laurentian University, for the most part, annually outperformed all other universities.

Table 2

Transfer Registration as a Percent of Transfer Applications  
 Analysis by Size of Institution  
 2005-2014

Size	Institution	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
S	Algoma	30.1	29.4	30.3	30.4	34.7	47.0	56.4	56.4	44.4	
S	Lakehead	41.3	42.3	33.7	33.2	32.5	34.1	29.1	33.7	32.1	28.4
S	Laurentian	57.9	58.0	68.2	60.6	73.1	56.0	24.0	53.0	48.3	47.5
S	Nipissing	22.7	19.7	28.6	18.7	19.4	51.6	46.1	19.9	17.4	11.7
S	OCAD	59.8	55.2	61.7	53.0	63.8	55.0	55.6	52.9	44.7	47.2
S	Trent	26.2	28.3	21.9	21.9	24.2	24.5	21.4	16.7	17.4	17.1
S	UOIT	35.4	31.8	30.0	30.0	27.1	28.4	31.4	29.2	48.4	24.1
<b>Average by Group (Small)</b>		<b>39.1</b>	<b>37.8</b>	<b>39.2</b>	<b>35.4</b>	<b>39.3</b>	<b>42.4</b>	<b>37.7</b>	<b>37.4</b>	<b>36.1</b>	<b>29.3</b>
		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
M	Brock	20.8	18.3	20.5	24.4	25.6	29.3	28.6	20.7	17.9	18.3
M	Carleton	36.8	34.0	15.0	14.9	14.7	16.0	15.0	13.7	13.1	12.8
M	Guelph	13.5	9.9	11.1	20.7	12.0	19.1	18.2	17.6	13.7	11.4
M	Queen's	13.2	7.5	11.0	5.4	7.5	10.5	11.8	9.9	11.0	10.8
M	Wilfrid Laurier	16.1	11.1	9.0	10.5	9.1	8.8	8.3	8.7	7.1	6.0
M	Windsor	19.5	27.5	23.9	26.8	24.6	25.8	24.4	20.9	17.0	17.0
<b>Average by Group (Medium)</b>		<b>20.0</b>	<b>18.0</b>	<b>15.1</b>	<b>17.1</b>	<b>15.6</b>	<b>18.2</b>	<b>17.7</b>	<b>15.3</b>	<b>13.3</b>	<b>12.7</b>
		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
L	McMaster	16.6	12.9	11.7	12.0	10.0	14.5	13.3	13.1	10.4	11.7
L	Ottawa	13.3	9.1	11.9	11.6	10.7	11.8	10.5	14.6	14.9	14.2
L	Ryerson	21.0	13.5	14.3	16.5	15.2	15.3	13.8	12.2	11.9	12.8
L	Toronto	17.9	16.8	17.1	17.3	18.9	17.0	16.8	18.6	17.3	17.9
L	Waterloo	13.3	11.0	10.8	9.1	9.1	10.1	10.5	11.6	11.1	12.0
L	Western	12.9	13.6	12.9	12.1	12.6	13.1	14.3	11.0	11.1	7.7
L	York					15.8	14.5	14.4	12.9	8.4	9.5
<b>Average by Group (Large)</b>		<b>15.8</b>	<b>12.8</b>	<b>13.1</b>	<b>13.1</b>	<b>13.2</b>	<b>13.8</b>	<b>13.4</b>	<b>13.4</b>	<b>12.2</b>	<b>12.3</b>
<b>System Average</b>		<b>25.7</b>	<b>23.7</b>	<b>23.3</b>	<b>22.6</b>	<b>23.0</b>	<b>25.1</b>	<b>23.2</b>	<b>22.4</b>	<b>20.9</b>	<b>17.8</b>

The differences in transfer students that registered as a percentage of transfer student applications for 2005 to 2011 between medium and large universities averaged 3.7% as compared to only 1.1% for 2012 to 2014. The system average has continually declined from 25.1% in 2010 to 17.8% in 2014, a drop of 7.3%.

It should also be noted that during the period from 2005 to 2014, undergraduate enrolment (part-time and full-time) grew from over 380,000 students to over 445,000, an increase of 16.9%. Small institutions grew in total by 21%, medium institutions; by 17% and large institutions by 16%. This means that increasing the number of transfer students might not have been an intentional institutional goal or strategy of all universities during a period of enrolment growth.

A review of the Multi-Year Accountability Agreement (MYAA) report for each Ontario University provided insight into why certain cluster of institutions more successfully participated in the transfer credit system as compared to others. Successful strategies that were reported by small and medium universities beyond entering into articulation agreements with colleges included:

- The creation of student outreach and support officers, or credit transfer positions, to help students understand institutional policies and procedures;
- Provide one-on-one advising to potential and confirmed students;
- Adoption of a block credit transfer policy;

- Provision of writing and math labs, workshops and focus groups;
- Customized orientation specific to transfer students.

The strategies reported by large universities beyond their membership in the University Credit Transfer Consortium made the least reference to the creation of outreach or support officers to deal specifically with transfer students, and appeared to provide less one-on-one or personalized service geared to transfer students as opposed to institutions in the other two categories.

The following table shows the same results by institution as previously discussed except that institutions are now grouped by type.

There are a few observations worthy of highlighting: special purpose institutions (Algoma and OCAD University) managed to attract a disproportionate amount of transfer students as compared to all other types of institutions, averaging 47.8% over 10 years. This compares to 33.6% for primarily undergraduates, 16.0% for comprehensives and 12.9% for medical/doctoral universities.

The differences in transfer students that registered as a percentage of transfer student applicants for 2005 to 2011 between comprehensive and medical/doctoral universities averaged 4.1%, as compared to only 0.3% for 2012 to 2014.

Table 3

Transfer Registration as a Percent of Transfer Applications  
 Analysis by Type of Institution  
 2005-2014

Type	Institution	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
PU	Lakehead	41.3	42.3	33.7	33.2	32.5	34.1	29.1	33.7	32.1	28.4
PU	Laurentian	57.9	58.0	68.2	60.6	73.1	56.0	24.0	53.0	48.3	47.5
PU	Nipissing	22.7	19.7	28.6	18.7	19.4	51.6	46.1	19.9	17.4	11.7
PU	Trent	26.2	28.3	21.9	21.9	24.2	24.5	21.4	16.7	17.4	17.1
PU	UOIT	35.4	31.8	30.0	30.0	27.1	28.4	31.4	29.2	48.4	24.1
	<b>Average - Primarily Undergraduate</b>	<b>36.7</b>	<b>36.0</b>	<b>36.5</b>	<b>32.9</b>	<b>35.3</b>	<b>38.9</b>	<b>30.4</b>	<b>30.5</b>	<b>32.7</b>	<b>25.8</b>
		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
C	Brock	20.8	18.3	20.5	24.4	25.6	29.3	28.6	20.7	17.9	18.3
C	Carleton	36.8	34.0	15.0	14.9	14.7	16.0	15.0	13.7	13.1	12.8
C	Guelph	13.5	9.9	11.1	20.7	12.0	19.1	18.2	17.6	13.7	11.4
C	Ryerson	21.0	13.5	14.3	16.5	15.2	15.3	13.8	12.2	11.9	12.8
C	Waterloo	13.3	11.0	10.8	9.1	9.1	10.1	10.5	11.6	11.1	12.0
C	Wilfrid Laurier	16.1	11.1	9.0	10.5	9.1	8.8	8.3	8.7	7.1	6.0
C	Windsor	19.5	27.5	23.9	26.8	24.6	25.8	24.4	20.9	17.0	17.0
C	York					15.8	14.5	14.4	12.9	8.4	9.5
	<b>Average - Comprehensive</b>	<b>20.1</b>	<b>17.9</b>	<b>14.9</b>	<b>17.6</b>	<b>15.8</b>	<b>17.4</b>	<b>16.7</b>	<b>14.8</b>	<b>12.5</b>	<b>12.5</b>
		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
MD	McMaster	16.6	12.9	11.7	12.0	10.0	14.5	13.3	13.1	10.4	11.7
MD	Ottawa	13.3	9.1	11.9	11.6	10.7	11.8	10.5	14.6	14.9	14.2
MD	Queen's	13.2	7.5	11.0	5.4	7.5	10.5	11.8	9.9	11.0	10.8
MD	Toronto	17.9	16.8	17.1	17.3	18.9	17.0	16.8	18.6	17.3	17.9
MD	Western	12.9	13.6	12.9	12.1	12.6	13.1	14.3	11.0	11.1	7.7
	<b>Average - Medical Doctoral</b>	<b>14.8</b>	<b>12.0</b>	<b>12.9</b>	<b>11.7</b>	<b>12.0</b>	<b>13.4</b>	<b>13.3</b>	<b>13.5</b>	<b>12.9</b>	<b>12.5</b>
		<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
SP	Algoma	30.1	29.4	30.3	30.4	34.7	47.0	56.4	56.4	44.4	
SP	OCAD	59.8	55.2	61.7	53.0	63.8	55.0	55.6	52.9	44.7	47.2
	<b>Average - Special Purpose</b>	<b>44.9</b>	<b>42.3</b>	<b>46.0</b>	<b>41.7</b>	<b>49.2</b>	<b>51.0</b>	<b>56.0</b>	<b>54.7</b>	<b>44.5</b>	<b>47.2</b>
	<b>System Average</b>	<b>25.7</b>	<b>23.7</b>	<b>23.3</b>	<b>22.6</b>	<b>23.0</b>	<b>25.1</b>	<b>23.2</b>	<b>22.4</b>	<b>20.9</b>	<b>17.8</b>



## 11 Other observations from articulation and credit transfer analysis

Depending on their size, mission and demographic futures, institutions use different tools available to them to support the broader provincial policy goal of introducing greater student mobility in the system. It appears that universities place a greater emphasis on either credit transfer policies/protocols, or on the development of articulation agreements. Most universities selected for this study demonstrate that for the most part, institutions are attempting and succeeding at carrying out these activities in ways that reflect both their Strategic Mandate Agreements (which ideally embody their current or future behaviour), as well as the particular role they play in the sector. The importance to universities of credit transfer and/or program articulation with colleges also reflects the demographic challenges faced by these institutions in the region in which they are located.

If the province does indeed decide to adopt a policy of creating greater institutional differentiation, which appropriately executes the potential levers at its disposal, the government must then compel institutions to take on a greater commitment to nurturing student mobility. It can do so by adopting the following recommendations.

## 12 Key observations for future considerations

The paper concludes with some key observations that would warrant future assessment within the broader funding formula and OSAP policies and practices that the authors feel are necessary for either policy goal to succeed. These observations are intended to address the intersection of the differentiation and student mobility agenda. To that end, no recommendations were made within this section that deals specifically with increasing differentiation and student mobility as separate policy goals in Ontario. Previous sections that provide the literature review and a description of the applicable policy levers address each one separately.

1. As part of the funding formula review for the university sector, establish an extra formula enrolment envelope to encourage institutions to increase the number of transfer students (through program partnerships, credit transfer and the creation of articulation agreements). This would be in the form of a fixed per student dollar value that exceeds the BIU value of the program in which the student enrolls.
  - a. As part of the process, universities must offer clear targets for receiving transfer students through the means described above, and must bid competitively for their share of the envelope based on the number of transfers.
  - b. Submissions should consider the potential extra resources required to support transfer students, e.g. academic advising; registrarial services; student access guarantee-generated student financial assistance, borne by the institution; tutoring and writing services.
  - c. Eliminate the current premise that underlines the allocation of the Credit Transfer Institutional Grant (CTIG), since this recommendation emphasizes the scope of transfer activity, as opposed to the quality of and strategic value of such activity.

2. Going forward, request that institutions include as part of their Strategic Mandate Agreement submission, a discussion of the institution's transfer capacity and how it will be achieved through the use of one or both student mobility tools.
  - a. For example, an institution may favour developing a more robust system of credit transfer and recognition, rather than pursuing and entering into bi-lateral arrangements with other institutions on a program-specific basis.
  - b. Institutions should also provide to government, through the SMA process, the results of an assessment as to what its transfer capacity is: should it grow, remains constant or contract? What level of transfer activity is most appropriate to the institution/program and why?
  
3. Ensure that the distance component of the Ontario Student Assistance Program is sufficient to meet the costs of student mobility and choice.
  - a. In a vast province like Ontario, students in a truly differentiated higher education system require sufficient and direct support to have access to programs offered outside of their local community. This includes both the ability to pursue additional credential opportunities, as well as to allow students to correct for an initial incorrect program choice.
  - b. Currently, students must demonstrate that the program they are attending is not offered within 80km of their home. In future, it is recommended that this grant reflect the true costs of living away from home and is not limited to attending a program offered at the institution closest to home.

## References

- Australian Qualifications Framework (2013-a). Second edition. Definition of credit transfer. Retrieved on December 11, 2016 from [http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF\\_glossary\\_Jan2013.pdf](http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF_glossary_Jan2013.pdf)
- Australian Qualifications Framework (2013-b). Second edition. Definition of credit. Retrieved on December 11, 2016 from [http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF\\_glossary\\_Jan2013.pdf](http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF_glossary_Jan2013.pdf)
- Australian Qualifications Framework (2013-c). Second edition. Definition of articulation. Retrieved on December 11, 2016 from [http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF\\_glossary\\_Jan2013.pdf](http://www.aqf.edu.au/wp-content/uploads/2013/05/AQF_glossary_Jan2013.pdf)
- Axelrod, R (1984). *The evolution of co-operation*. New York: Basic Books.
- Birnbaum, R. (1983). *Maintaining diversity in higher education*. San Francisco, CA: Jossey-Bass.
- Boggs, A. & Trick, D. (2009). *Making college-university cooperation work: Ontario in a national and international context*. Toronto: Higher Education Quality Council of Ontario.
- Bovey Commission (1984). Commission on the future development of the universities of Ontario. *Ontario Universities: Options and Futures*. Toronto: Ministry of Colleges and Universities.
- Clark, I.D., Moran, G., Skolnik, M.L., & Trick, D. (2009). *Academic transformation: The forces reshaping higher education in Ontario*. Montreal, QC / Kingston, ON: Queen's Policy Studies Series, McGill-Queen's University Press.
- Clark, I.D., Trick, D., & Van Loon, R. (2011). *Academic reform: Policy options for improving the quality and cost-effectiveness of undergraduate education in Ontario*. Montreal, QC / Kingston, ON: Queen's Policy Studies Series, McGill-Queen's University Press.
- Codling, A., & Meek, V.L. (2006). Twelve propositions on diversity in higher education. *Higher Education Management and Policy*, 18(3), 1-24.
- Council of Ministers of Education, Canada (CMEC) (2013). "Ministers call for more innovation and expanded opportunities as education systems look to the future." Retrieved February 17, 2016 from [http://cmec.ca/278/Press-Releases/Ministers-Call-for-More-Innovation-and-Expanded-Opportunities-as-Education-Systems-Look-to-the-Future.html?id\\_article=626](http://cmec.ca/278/Press-Releases/Ministers-Call-for-More-Innovation-and-Expanded-Opportunities-as-Education-Systems-Look-to-the-Future.html?id_article=626)
- Davis, W. (1967) Statement by the Minister (William Davis) introducing the legislation to create the system of Colleges and Applied Arts and Technology in the province of Ontario. Retrieved January 30, 2017 from [https://cclp.mior.ca/index.php/download\\_file/-/view/26](https://cclp.mior.ca/index.php/download_file/-/view/26)
- Dennison, J. (ed) (1995). *Challenge and opportunity: Canada's community college at the crossroads*. Vancouver, BC: University of British Columbia Press.
- Dennison, J. D. & Gallagher, P. (1986). *Canada's community colleges: A critical analysis*. Vancouver: UBC Press.

- DiMaggio, P.J., & Powell, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48, 147-160.
- Excellence, Accessibility, Responsibility (1996). *Report of the advisory panel on future directions for postsecondary education*. Toronto: Ministry of Education and Training.
- Fallis, G. (2013). *Rethinking higher education: Participation, research and differentiation*. Montreal and Kingston: McGill-Queen's University Press.
- Fisher, D, Rubenson, K., Shanahan, T. & Trottier, C. (Eds) (2014). *The development of postsecondary education systems in Canada. A Comparison between British Columbia, Ontario and Quebec 1980 to 2010*. Montreal, QC / Kingston, ON: McGill-Queen's University Press.
- Fisher Committee Report (1981). *The report of the committee on the future role of universities in Ontario*. Toronto: Ministry of Colleges and Universities.
- Gallagher, P., & Dennison, J. D. (1995). Canada's community college systems: A study of diversity. *Community College Journal of Research and Practice*, 12(5), 382-393.
- Hannan, M.T., & Freeman, J. (1989). *Organizational ecology*. Cambridge, MA: Harvard University Press.
- Hicks, M., Weingarten, H.P., Jonker, L., & Liu, S. (2013). *The diversity of Ontario colleges: A data set to inform the differentiation discussion*. Toronto: Higher Education Quality Council of Ontario.
- Higher Education Quality Council of Ontario, (2013). *Quality: Shifting the focus. A report from the expert panel to assess the strategic mandate agreement submissions*. Toronto: Higher Education Quality Council of Ontario.
- Huisman, J. (1998). Differentiation and diversity in higher education systems. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. XIII, pp. 75–110). New York, NY: Agathon Press.
- Hurlihey, V. (2012). College-University transfer programs in Ontario: A history and a case study. *College Quarterly*, 15(4).
- Jones, G. A. (1996). Diversity within a decentralized higher education system: The case for Canada. In Meek, V.L., Goedegebuure, L., Kivinen, O., & Rinne, R., (Eds.) *The Mockers and Mocked: Comparative Perspectives on Differentiation, Convergence and Diversity in Higher Education* (pp. 79-94). Oxford: Pergamon.
- Jones, G. A., & Skolnik, M. (2009). *Degrees of opportunity: Broadening student access by increasing institutional differentiation in Ontario higher education*. Toronto: Higher Education Quality Council of Ontario.
- Jonker, L., & Hicks, M. (2016). *The differentiation of the Ontario university system: Where are we now and where should we go?* Toronto: Higher Education Quality Council of Ontario.
- Junor, S., & Usher, A. (2008). *Student mobility & credit transfer: A national and global survey*. Educational Policy Institute. Retrieved on December 17, 2016 from <http://www.educationalpolicy.org/publications/pubpdf/credit.pdf>

- Kirby, D. (2008). Advancing articulation: Models of college-university collaboration in Canadian higher education. *College Quarterly*, 11(4).
- Kirby, D. (2007). Change and challenge: Ontario's collaborative baccalaureate nursing programs. *Canadian Journal of Higher Education*, 37(2), 29-46.
- Lang, D. W. (2002). A lexicon of inter-institutional cooperation. *Higher Education*, 44(1), 153-183.
- Lang, D. W. (2009). Articulation, transfer, and student choice in a binary post-secondary system. *Higher Education*, 57(3), 355-371.
- Lennon, M. C., Brijmohan, A., Lavigne, E., Yang, J., Moodie, G. and Wheelahan, L. (2016). *Ontario Student Mobility: Carving paths of desire*. Toronto: Centre for the Study of Canadian and International Higher Education, OISE/University of Toronto
- Levin, J.S. (2004). The community college as a baccalaureate-granting institution. *The Review of Higher Education*, 28 (1), 1-22.
- Ministry of Training, Colleges and Universities (1996). *Future goals for Ontario colleges and universities*. Toronto, ON: Queen's Printer for Ontario. Retrieved from <http://www.tcu.gov.on.ca/eng/document/reports/futuree.html>
- Ministry of Training, Colleges and Universities (2011). *Policy statement for Ontario's credit transfer system*. Toronto, ON: Queen's Printer for Ontario. Retrieved from <http://govdocs.ourontario.ca/node/7659>
- Ministry of Training, Colleges and Universities (2013). *Ontario's differentiation policy framework for postsecondary education*. Toronto, ON: Queen's Printer for Ontario. Retrieved on December 11, 2016 from [http://www.tcu.gov.on.ca/pepg/publications/PolicyFramework\\_PostSec.pdf](http://www.tcu.gov.on.ca/pepg/publications/PolicyFramework_PostSec.pdf)
- OCAD U *Strategic mandate agreement, 2014-17, between the Ministry of Training, Colleges and Universities and Ontario College of Art and Design University*. Retrieved on December 11, 2016 from <http://www.tcu.gov.on.ca/pepg/publications/vision/OCADAgreement.pdf>
- Ontario Council on Articulation and Transfer (2013). Forging new pathways to improve student mobility in the province of Ontario. Retrieved on February 1, 2016 from [http://www.oncat.ca/files\\_docs/content/pdf/en/Sept2013-ONCAT-Consultation-paper.pdf](http://www.oncat.ca/files_docs/content/pdf/en/Sept2013-ONCAT-Consultation-paper.pdf)
- Ontario Nurses Association (2016), Our history, 1990-1999. Retrieved on February 18, 2016 from [https://www.ona.org/about\\_us/our\\_history/1990-1999.html](https://www.ona.org/about_us/our_history/1990-1999.html)
- Park, S. H. & Russo, M.V. (1996). When competition eclipses co-operation: An event history analysis of joint venture failure. *Management Science*, 42, 875-890.
- Piché, P. G. (2014). *Systemic and climate diversity in Ontario's university sector* (Doctoral dissertation). Retrieved from TSpace. <https://tspace.library.utoronto.ca/handle/1807/65718>
- Piché, P. G. (2015a). Measuring systemic and climate diversity in Ontario's university sector. *Canadian Journal of Higher Education*, 45(4), 63-80.

- Piché, P. G. (2015b). Institutional diversity and funding universities in Ontario: Is there a link? *Journal of Higher Education Policy and Management*, 37(1), 52–68.
- Piché, P. G., & Jones, G. A. (2016). Institutional Diversity in Ontario's University Sector: A Policy Debate Analysis, *Canadian Journal of Higher Education*, 46(3), 1-17.
- Pitman, W. G. (1993). *No dead ends: Report of the Task Force on Advanced Training to the Minister of Education and Training*. Toronto: The Task Force.
- Rae, Bob (2005). (Adviser to the Premier and the Minister of Training Colleges and Universities) *Ontario: A leader in learning. Report and recommendations*. Retrieved on December 11, 2016 from <http://www.tcu.gov.on.ca/eng/document/reports/postsec.pdf>
- Reichert, S. (2009). *Institutional diversity in European higher education – Tensions and challenges for policy makers and institutional leaders*. Brussels, Belgium: European University Association.
- Singh, M. (2008). Valuing differentiation as a qualified good: The case of South African higher education. *Higher Education Policy*, 21(2), 245-263.
- Skolnik, M. L. (1986). Diversity in higher education: The Canadian case. Used unabridged version later published in *The European Review of Higher Education*, XI, (2), 19-32.
- Skolnik, M. L. (2004). The relationship of the community college to other providers of postsecondary and adult education in Canada and implications for policy. *Higher Education Perspectives*, 1(1), 36-58.
- Skolnik, M. L. (2005). A discussion of some of the issues pertaining to the structure of postsecondary education in Ontario and some suggestions or addressing them. *College Quarterly*, 8(1).
- Skolnik, M. L. (2013). An historical perspective on the idea of institutional diversity and differentiation in Ontario higher education. *College Quarterly*, 16(2).
- Smith, D. (1996). Excellence Accessibility Responsibility: Report of the Advisory Panel on Future Directions for Postsecondary Education. *Ontario Ministry of Training, Colleges and Universities*. Retrieved on August 4, 2016 from: <http://www.tcu.gov.on.ca/eng/document/reports/futuree.html>
- Snowdon, K. & Brady, J. (2015). *Towards a better understanding of credit transfer costs and benefits*. Snowdon and Associates Inc.
- Spinks Commission (1966). *Report of the commission to study the development of graduate programmes in Ontario Universities*. Toronto: Queen's Printer.
- Thomas, A. (2001). *Dimensions of the experience of prior learning: assessment & recognition*. New Approaches to Lifelong to Learning; OISE/UT.
- Thomas, A., Collins, M. & Plett, L. (2002). *Dimensions of the experience of learning outcomes: Assessment & Recognition*. The Research Network for New Approaches to lifelong learning. Retrieved on December 11, 2016 from <http://fcis.oise.utoronto.ca/~plar/Plar.pdf>
- Trick, D. (2013). *College-to-university transfer arrangements and undergraduate education: Ontario in a national and international context*. Toronto: Higher Education Quality Council of Ontario.

- Trick, D. (2016). *The cost of recruiting and admitting transfer students: Results of a survey of Ontario colleges and universities*. Toronto: Ontario Council on Articulation and Transfer.
- Van Vught, F. (2008). Mission diversity and reputation in higher education. *Higher Education Policy*, 21, 151-174.
- Weingarten, H. P., & Deller, F. (2010). *The benefits of greater differentiation of Ontario's university sector*. Toronto: Higher Education Quality Council of Ontario.
- Weingarten, H. P., Hicks, M., Jonker, L., & Moran, G. (2017). *University sustainability: Signal data*. Toronto: Higher Education Quality Council of Ontario.
- Young, S.J. (2001) *The market model in higher education: Ontario in comparative perspective*. (Doctoral dissertation). Retrieved from TSpace.  
<https://tspace.library.utoronto.ca/bitstream/1807/15623/1/NQ63811.pdf>
- Young, S. J. (2002). The use of market mechanisms in higher education finance and state control: Ontario considered. *Canadian Journal of Higher Education*, 32(2),79-102.
- Young, S.; Roderick, C.; & DiPietro, C. (2016). *Articulation at OCAD University: A cost-benefit analysis*. Toronto: Ontario Council on Articulation and Transfer.