Exploring Institutional Change at Three Ontario Colleges: 2002-2012

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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ABSTRACT

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Legislative changes in 2000 and 2002 marked the beginning of the most dynamic period of change for the Ontario Colleges since their formation in 1965. Entering the time period of the study, the colleges were affected by large funding cuts in 1995/96 which created a condition where the colleges were forced to enhance existing, and create new, revenue streams. The Post-secondary Education Choice and Excellence Act, 2000 opened the possibility of offering degrees to the colleges. The Ontario Colleges of Applied Arts and Technology Act, 2002 altered the system’s governance structures to provide a new operational autonomy that allowed the colleges to pursue new revenue streams more flexibly. In addition, the 2002 Act included provisions for engaging in applied research at the colleges.

The thesis applies a theoretical framework used in W.R. Scott’s book (2000) *Institutional Change and Healthcare Organizations: From professional dominance to managed care* to analyze the changes within the Ontario College system and at the three colleges studied. The framework uses concepts from Resource Dependence Theory and Institutional Theory to define the material-resource and institutional environments respectively. Based on the contention that changes in these two environments provide evidence of institutional change, this thesis examines the material-resource and institutional environments over the period of the study, providing a description of the changes at the colleges.
The study contains a survey of system-level changes, and an examination of the three individual case studies of Ontario colleges in response to those changes. The study was conducted using a qualitative case-study approach, using archival documents and a total of 26 in-depth semi-structured interviews of key policy actors and senior administrators at each college participating in the study.

In the decade following the legislative changes, colleges adopted more activities and engaged with more stakeholders outside of the college, thus the operating environment of the colleges became more complex. The external environmental complexity was reflected onto the internal organizational structure of the colleges. As a result, each college reorganized in terms of structure, expertise it contained and more profoundly, it changed how and why the college made the decisions that it did.
Acknowledgements

Before I begin acknowledging the people around me, I would like to acknowledge the opportunities and ideal circumstances that life has presented to me to be able to complete this work. I have been blessed with good health for myself and the closest around me, as well as a financial capacity that did not restrict how I pursued education.

Shiyamala, my wife; I received nothing but unwavering support, in the form of encouragement, understanding, countless hours listening to me talking and then finally proofreading the document (she even added this last point). I’m finding it difficult to acknowledge the extent of sacrifice and burden that she had to carry for me.

My wonderful parents and in-laws who provided invaluable support and assistance with our children so that I could find the time to complete this work.

My colleagues from Humber College provided ongoing support and check-ins. Vincent Shaikh, my Associate Dean, for supporting my endeavours and giving me the flexibility over the last few years to finish this work.

Dr. Roy Giroux, whose enthusiasm for learning and the college system guided me to choose this direction. Dr. Robert (Squee) Gordon, whose knowledge of the system helped set the path in the early stages.

 Presidents of the colleges in this study for committing their institutions and supporting research in the sector. Participants in the study for sharing their time and thoughts.

My thesis committee, Michael Skolnik and Dr. Peter Dietsche, provided great support and ideas which helped direct the thesis.
Finally, I would like to give special thanks to Dr. Glen Jones my supervisor; who provided tremendous support, encouragement and timely feedback, without which I doubt I would have been able to complete this thesis.
Dedication

To my parents, Dianand and Pushpa,

who built the core of my identity and gave me the love of learning and studying.

And to my children, Naya, Mila, Lilia, and Devan,

who represent the core of my identity and to whom I hope I have passed that same love.
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<tbody>
<tr>
<td>ACAATO</td>
<td>Association of Colleges of Applied Arts and Technology of Ontario (Colleges Ontario)</td>
</tr>
<tr>
<td>AMER</td>
<td>Advanced Materials Engineering Research (Lambton College)</td>
</tr>
<tr>
<td>ARTI</td>
<td>Applied Research Tools and Instruments (NSERC program)</td>
</tr>
<tr>
<td>AUCC</td>
<td>Association of Universities and Colleges of Canada</td>
</tr>
<tr>
<td>BRU</td>
<td>Base Reference Unit</td>
</tr>
<tr>
<td>CAAT</td>
<td>Colleges of Applied Arts and Technology</td>
</tr>
<tr>
<td>CAE</td>
<td>Centre of Academic Excellence (Seneca College)</td>
</tr>
<tr>
<td>CCAC</td>
<td>College Compensation and Appointments Council</td>
</tr>
<tr>
<td>CCIP</td>
<td>College and Community Innovation Program (NSERC program)</td>
</tr>
<tr>
<td>CFAV</td>
<td>Centre for Advanced Visualization (Niagara)</td>
</tr>
<tr>
<td>CFF</td>
<td>College Funding Formula</td>
</tr>
<tr>
<td>CFI</td>
<td>Canadian Foundation for Innovation</td>
</tr>
<tr>
<td>Charter</td>
<td>legislation defining the Ontario college system, mainly the Ontario Colleges of Applied Arts and Technology Act, 2002</td>
</tr>
<tr>
<td>CIHR</td>
<td>Canadian Institutes of Health Research</td>
</tr>
<tr>
<td>CONII</td>
<td>Colleges Ontario Network for Industry Innovation</td>
</tr>
<tr>
<td>CoR</td>
<td>Council of Regents</td>
</tr>
<tr>
<td>CSAC</td>
<td>College Standards and Accreditation Council</td>
</tr>
<tr>
<td>CUCC</td>
<td>College-University Consortium Council</td>
</tr>
<tr>
<td>CVS</td>
<td>Credential Validation Service</td>
</tr>
<tr>
<td>GTA</td>
<td>Greater Toronto Area</td>
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<tr>
<td>HRDC</td>
<td>Human Resources Development Canada</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>IARC</td>
<td>Instructional Assignment Review Committee</td>
</tr>
<tr>
<td>IFF</td>
<td>Interim Funding Formula</td>
</tr>
<tr>
<td>IRCC</td>
<td>Industrial Research Chair for Colleges (NSERC program)</td>
</tr>
<tr>
<td>ITAL</td>
<td>Institute of Technology and Advanced Learning</td>
</tr>
<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
</tr>
<tr>
<td>LINC</td>
<td>Learning Innovation Center (Lambton College)</td>
</tr>
<tr>
<td>MTCU</td>
<td>Ministry of Training, Colleges, and Universities</td>
</tr>
<tr>
<td>NSERC</td>
<td>Natural Sciences and Engineering Research Council</td>
</tr>
<tr>
<td>OCE</td>
<td>Ontario Centres of Excellence</td>
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<tr>
<td>OCQAS</td>
<td>Ontario Colleges Quality Assurance Service</td>
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<tr>
<td>OIT</td>
<td>Ontario Innovation Trust</td>
</tr>
<tr>
<td>ONE</td>
<td>Ontario Network of Excellence</td>
</tr>
<tr>
<td>PAC</td>
<td>Program Advisory Committee</td>
</tr>
<tr>
<td>PEQAB</td>
<td>Post-secondary Education Quality Assessment Board</td>
</tr>
<tr>
<td>PQAPA</td>
<td>Program Quality Assurance Process Audit</td>
</tr>
<tr>
<td>PSE</td>
<td>Post-secondary Education</td>
</tr>
<tr>
<td>SLEP</td>
<td>Sarnia-Lambton Economic Partnership</td>
</tr>
<tr>
<td>SME</td>
<td>Small-to-Medium-sized Enterprise</td>
</tr>
<tr>
<td>SNR</td>
<td>Small, Northern and Rural grant</td>
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<tr>
<td>SSHRC</td>
<td>Social Sciences and Humanities Research Council</td>
</tr>
<tr>
<td>SWF</td>
<td>Standard Workload Form</td>
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<tr>
<td>WFU</td>
<td>Weighted Funding Unit</td>
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Chapter 1: Introduction

Concerning the study of organizational change, Selznick (1957) stated that:

We should concentrate on those critical decisions that, once made, result in a change in the structure itself. The pattern of these critical decisions, viewed over time, results in development of distinctive character for an organization, just as an individual’s critical decisions and typical mode of coping with problems give rise to [an individual’s] distinctive personality. (as cited in Scott, 2007, p.74)

The years between 2002 and 2012 marked some critical changes to the Ontario college system philosophy and structure. In 2000 and 2002, the provincial government made changes to the governing legislation of the colleges, allowing them to chart their own path. As a result of the legislative changes, within the college system, the colleges needed to organize how to handle the responsibilities of self-governance with respect to program development, program review and local operating procedures. Furthermore, colleges were faced with decisions to participate or not participate in activities that were not traditionally in their purview, with the possibility of engaging higher-order academic activities in terms of applied research and degree-offering as ways to achieve the college mission.

The primary focus of this thesis is to provide a descriptive case study analysis using institutional theory to explore institutional change at three Ontario colleges over the time period of 2002-2012. The case study uses a combination of archival and interview data. The phenomenon described by Selznick’s quotation above, of the colleges making critical decisions that altered the character of their institutions, is reflected in this thesis. This research project was designed to increase our understanding of how the colleges changed internally, in terms of governance structures, institutional actors, and institutional logics, in response to the changes in legislation.
This chapter will start with my personal motivation for undertaking this work. Afterwards, the chapter will provide the reader with an introduction to this thesis, stating the background and purpose of the study, the contributions of the literature, and an outline of the overall thesis.

1.2 A Personal Motivation

My story begins when I was a child. I grew up across the street from Humber College in Etobicoke, Ontario. I could see the College from my bedroom. I used to play in the fields where Humber’s Athletic Centre now resides. I was born in Toronto. My parents immigrated to Canada and both had left large families back home. The end goal for my mom’s and dad’s families was to also immigrate to Canada, a politically stable country that provided a strong economy for them to settle and create their own families. My parents’ job was to sponsor their brothers and sisters to Canada and help them start their new lives.

As my uncles and aunts arrived in Canada they would live with us. My parents had one condition for their siblings: my uncles and aunts had to go to school and finish at least a diploma. I grew up in a house with 12 people, where at times, at least six people were studying at Humber College in a variety of subjects ranging from accounting to computer programming to drafting. I was surrounded by education. One of my mom’s favourite stories is one where when I was about three years old, I woke up one morning, got myself dressed, put on my jacket and my shoes, put on my backpack and unlocked the front door. When asked where I was going, I responded simply: “Hummer”.

My connection with the college system, and especially Humber College, has been there since my birth. Humber College has been the launching pad for the lives – both professional and personal – of almost my entire family. Twenty-two years after my first attempt to go to Humber,
I returned. After finishing my bachelor’s degree in Engineering, working in industry, and completing my Master’s degree in Engineering, I came back to where my fascination with education began. I started teaching at Humber and have not looked back since.

It was 2005 and I had just started as a faculty member at Humber College. I was trying to understand where I fit into the faculty, where I fit into the College, and where we fit into the entire system. I quickly found out that the college system was at a moment of identity conflict. All of my colleagues were great: friendly, knowledgeable and hard-working. However, when I entered the system, I was pulled in all directions, teaching at three different levels of programming: diploma, graduate certificate and a degree (offered by the University of Guelph-Humber).

My associations and teaching experiences with the three different programs led to several realizations. The first realization was that Humber serviced a diverse set of students. In the diploma program, from what I could identify, I taught Canadian-born students directly out of high school, a couple of international students, and new immigrants who were having difficulties finding a job. In the graduate certificate, the majority of the student body was international with at least a Bachelor’s degree in Engineering. There were also a handful of older new immigrants looking for Canadian experience. Finally, the degree program was primarily filled with students directly from Canadian high schools. The needs, expectations, and previous experiences of the diverse array of my students cannot be summarized simply, and yet the College was expected to create programs that serviced all of these different types of students.

The second realization was that Humber was facing an internal conflict of belief systems. As I started teaching at the University of Guelph-Humber, several comments were made to me in disdain about my landing the ‘gig’ at Guelph-Humber because of my Master’s degree and my
intention to do research there. Firstly, I gathered from the comments that there was a misunderstanding of Humber’s relationship to the University of Guelph-Humber given that at the time Humber did not do research there. And secondly, within the faculty, there was a definite conflict over the identity of the College. Was the purpose of the College to be theoretical or hands-on? Was there a hierarchy between programs and between faculty? From my perspective, it was obvious that I did not understand the context of the system that I was in. It was the year 2005 and all Ontario college faculty were, I think, facing the similar identity issues.

1.3 Background of the Study

In the early years of the twenty-first century, the provincial government passed two new pieces of legislation that have significantly shaped the way that the Ontario colleges operate: The Post-secondary Education Choice and Excellence Act, 2000, and the Ontario Colleges of Applied Arts and Technology Act, 2002. This thesis will use institutional theory as a guide to look at the overall effects of the statutes on the structure of the Ontario college system and then focus on how three individual institutions - Seneca College, Niagara College and Lambton College - adapted their operations to this new operating environment.

The mandate of the colleges has historically been, and continues to be, geared to economic development. According to the Ontario Colleges of Applied Arts and Technology Act, 2002, the objects of the Ontario college:

are to offer a comprehensive program of career-oriented, post-secondary education and training to assist individuals in finding and keeping employment, to meet the needs of employers and the changing work environment and to support the economic and social development of their local and diverse communities. (Government of Ontario, 1990)

The Ontario Colleges of Applied Arts and Technology Act, 2002, including Ontario Regulation 34/03 (henceforth the “Charter”), changed the way that Ontario colleges were
governed. The legislation removed the role of the Council of Regents\(^1\) from the system, updated the role and responsibilities of each college’s local board of governors, created new reporting requirements, and added the possibility of applied research activity as a way of achieving a college’s objects.

In comparison to the previous governing legislation, this Charter provided additional means for the colleges to carry out their mission: it allowed the colleges to freely enter into partnerships with business, industry, and other institutions and engage in applied research. Following the findings of an Ontario Jobs and Investment Board report, the provincial legislators created a new Charter that would allow the colleges to be “more market-driven and more flexible” (Ontario Jobs and Investment Board, 1999, p. 20).

The Post-secondary Education Choice and Excellence Act, 2000 was designed to increase competition in Ontario’s degree-granting environment while ensuring the quality of the degree programs. The new legislation expanded the program and institutional degree choices available in the province. The legislation required organizations wishing to offer degree programming, or to be known as a university, to have the consent of the Minister of Training, Colleges, and Universities (MTCU). It created an arm’s-length advisory body, the Postsecondary Education Quality Assessment Board (PEQAB), to review applications for degree programs and make recommendations to the appropriate Minister. Consent was required by all organizations whose legislated charters did not contain the legal authority to grant degrees. This included not only the Ontario Colleges, but also private and out-of-province institutions. Thus, the legislation gave the Ontario colleges a new opportunity to offer degree programming, subject to the PEQAB process and the consent of the Minister.

\(^1\) The Ontario Council of Regents was created in the Ontario Colleges of Applied Arts and Technology Act, 1965, to act as an intermediary body between the government and the colleges.
Each of the 24 colleges in the system have had the opportunity to use their new capabilities outlined in the two pieces of legislation. However, the legislation also allows each college to respond to its particular local needs and requirements and not all colleges have used the provisions in the legislation equally or in the same manner. Although, in many respects, the Ontario college system has been viewed as ‘one system’ and somewhat homogeneous, there exists much diversity in operating conditions between colleges in the system. For example, in order to highlight the diversity of environments that the colleges operated under, Table 1.1 is a 2011 snapshot of two colleges: Northern College, a small rural college in far north-eastern Ontario, and Humber College, the largest Ontario college located in the metropolitan Greater Toronto Area (GTA).

Table 1.1
Comparison of Northern College and Humber College, 2011

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Northern College</th>
<th>Humber College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time FTE$^2$ students</td>
<td>1227</td>
<td>16791</td>
</tr>
<tr>
<td>Part-time FTE students</td>
<td>120</td>
<td>2080</td>
</tr>
<tr>
<td>Population of Original Catchment$^3$</td>
<td>113,000</td>
<td>481,000</td>
</tr>
<tr>
<td>Size of Original Catchment (km$^2$)</td>
<td>154,000</td>
<td>146</td>
</tr>
<tr>
<td>Budget</td>
<td>$38M</td>
<td>$313M</td>
</tr>
<tr>
<td>Number of campuses</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Number of Programs</td>
<td>&lt;110</td>
<td>350</td>
</tr>
</tbody>
</table>

$^2$ FTE refers to Full-Time Equivalent, which is the measure that the Ontario College system uses for enrollment.

$^3$ The catchment refers to the area that the college was responsible for serving. These areas were defined in the 1965 act. In the 2002 Ontario Colleges of Applied Arts and Technology Act, catchment areas were removed.
Each inherited attribute from the local operating environment poses a different set of challenges or opportunities to the operation of the institution. Northern College and Humber College contrast in operating environments, which in turn has a profound effect on the focus of each college’s mission. In the original formulation of the Ontario colleges, each college was assigned to serve the needs of its local community (or catchment). Northern College’s original catchment area was 150,200 square kilometers compared to Humber College’s original catchment area of 146 square kilometers. In its area, Northern College serves a population of approximately 113,000 people, giving a population density of less than one person per square kilometer. In contrast, the population density surrounding Humber College is about 3,000 people per square kilometer. The population density and size of catchment makes Humber’s programming more cost-effective to run.

The operating conditions for the two colleges vary greatly, which in turn affect the operationalization of the mission of the two colleges. The industry base in far north-eastern Ontario is limited to the forestry, mining and service sectors, while Humber College serves a highly diverse set of industries and sectors. As a result, programming at Humber is much more diverse than that at Northern.

Northern College has to face the challenge of serving the students while maintaining a sustainable cost structure, in terms of number of campuses and class size. The cost structure to operate four small campuses versus two large campuses at Humber gives Humber greater flexibility to offer inclusive and complete student services. Based on the FTE to program ratio, Northern has on average 12 FTE students per program compared to Humber having 54 FTE students per program, making Humber’s programs more financially sustainable.
Each inherited attribute from the local operating environment poses a different set of challenges or opportunities to the operation of the institution. Although, in many respects, the Ontario college system is indeed a single system, and somewhat a homogeneous one, the above comparison serves as a reminder of the diversity that exists within the system. This study will help increase our understanding of how the legislative changes affected the system as a whole and how three different colleges within the system responded to the changes in their environments.

1.4 Purpose of the Study and Research Questions

An analysis of the college system in Ontario is one small piece in the greater discussion of the government’s role in societal well-being. Higher education systems play an important function in the operation of our society. The optimal functioning of the higher education system contributes at a profound level to good citizenry, economic performance and innovation, and opportunities for social mobility (Trow, 2000). In this sense, education could be viewed as one cornerstone of our society.

Research on higher education is relatively new, with formal programs and research centers emerging in Canada only in the 1960s and with only modest growth moving into the 1990s (G. A. Jones, 2012). Much of the research in higher education has been focused on the university, with little attention given to other forms of post-secondary institutions. The Ontario college system’s mission and role has evolved considerably over the last two decades, yet very little has been written on the Ontario college sector either at a system- or at an institutional-level (Dennison & Gallagher, 1986). Our understanding of the sector’s history is defined by a handful of government documents, newspaper articles and a relatively small number of scholars.
The fundamental purpose of this study is to gain a better understanding of how institutions adjusted their operations in response to a change in their environment. Our higher education systems are exposed to countless stimuli; constantly reacting and conforming to government policies, higher education trends, and advances in technology (Altbach & Knight, 2007). This thesis is a comparative case study of three colleges in the Ontario College of Applied Arts and Technology system over the period of 2002-2012. In 2000 and 2002, the Ontario government introduced two pieces of legislation that directly impacted the Ontario college sector. The first piece of legislation provided an avenue for colleges to offer baccalaureate programs. The second piece of legislation effectively changed the governance structure of the colleges allowing them to operate freely without direct approval from the government and expanded the activities available to the college to complete their mission.

The underlying premise of this thesis is that the changes in legislation in 2000 and 2002 laid the foundation for institutional change. The study examines the effect of the new provisions in the legislation on the Ontario college sector in the decade following the changes. Although the new legislation has allowed all colleges to offer baccalaureate degrees, do applied research and increase operating flexibilities, colleges have used these provisions to differing extents. This study is a series of three case studies of Ontario colleges: Lambton College, Niagara College, and Seneca College. The case studies are designed to chart the extent of institutional change at each college and to compare the extent of the changes across the three individual colleges. The study uses historical and archival documents, and interviews at each college to understand the extent of the changes.

Charles (2011) provides insight into how the legislative changes come into being. In this thesis, the changes in legislation are considered as an exogeneous factor on changes to the institution.
This thesis uses institutional theory as a framework to analyze the change at each college. As suggested by an examination on healthcare systems led by W.R. Scott (Scott, Ruef, Mendel, & Caronna, 2000), we can determine if there has been institutional change if we can observe changes in the institutional environment that defines the organization. The institutional environment consists of governance structures, institutional actors and institutional logics. Governance structures refer to the power structure and processes that decisions are made through. Institutional actors are the people and sub-organizations located either internal or external to an institution that affect decisions. The institutional logics are the philosophy and the constructs that shape the way that individuals in an organization make decisions and determine how they act on a daily basis (Scott et al., 2000). Institutional logics are highly related, and formed, to some extent, by the governance structures and actors within the organization.

This thesis attempts to answer the following research questions with respect to degree programming, applied research, and new decision-making and accountability structures at each college: How have the governance and decision-making structures changed between the 2002 and 2012? How have the institutional actors changed in the period between 2002 and 2012? How have the institutional logics changed in the period between 2002 and 2012? Table 1.2 depicts the approach of this thesis.
This thesis examines the institutional environment at the system level (of the Ontario college system) and at the institutional level (using three college case studies). At multiple levels of analysis, system-level and institutional-level, I examined the effects that degree programming, applied research and changes in accountability structures had on the institutional logics, institutional actors and governance structures.

1.5 Contributions to the Literature

I found no studies that have specifically explored organizational change at institutions within the Ontario college system during the period following changes in legislation.

A thesis by Cooke (2007) examined the strategic documents of the Ontario colleges. There was evidence of lack of diversity in each college’s strategic documents. He concluded that the structure of the Ontario College system was a single buyer system (i.e., the government). The colleges were legally crown corporations and considered themselves as extensions of the government Ministry. In order to shed itself from the dangers of a single buyer system, the colleges needed to change their legal status, develop a less competitive relationship with other
Ontario colleges and adopt a stronger association model. His thesis examined a time period between 1995 and 2005, where the changes caused by the legislation were just beginning to form.

A thesis by Charles (2011) reviewed how the legislation came into being. Her work was a historical study that examined the legislative changes from a public policy approach. She used Kingdon’s multiple streams model which stated that agenda-setting comes from an intersection of a problem stream, a policy stream, and a political stream. Charles, however, found that colleges within the Ontario system, through ACAATO, were able to inject their specific institutional problems into the problem stream, giving the colleges some form of agency with respect to system direction.

Academic Transformations, a book published in 2009, provides some descriptive and historical material about the Ontario post-secondary system, including the Ontario college system (Clark, Moran, Skolnik, & Trick, 2009). Although the book focuses on how the Ontario post-secondary system could provide sustainable baccalaureate education, the book surveys some of the existing demands on the Ontario colleges to understand the potential role colleges could play in offering baccalaureate degree programs.

The story that my thesis tells is one of internal diversification of institutions. Many studies and researchers have focused their efforts on external diversification; examining whether the system becomes more diverse through an increase in differences between institutions (Birnbaum, 1983; G. A. Jones, 2009; Morphew, 2002). However, this study is looking at the internal structure of the college. Many works have mentioned the many competing missions within the college as an institution, but rarely are the challenges of combining those missions in one organization examined (Levin, 1998).
What happens internally as the college adds activities or becomes more accountable for its decision-making processes? What adjustments are made to the internal structure to accommodate these changes? How do these new activities affect the institutional logics? What new positions and departments are there in the college? And how have decision-making processes changed?

A current snapshot of the college environment could give us a better understanding of the possibly profound changes that are occurring throughout the system. From the perspective of the Ontario college system, the findings of this thesis add to the historical record of the Ontario colleges. This research project examined the impact of the legislative changes on the internal and to some extent, the external, organization of the three colleges that are the focus of this study. This thesis could be of benefit to the government ministry, actors within the college system, and future researchers of Ontario higher education.

Within the higher education system in Ontario, institutional differentiation has been an important, and somewhat controversial, policy issue (G. A. Jones, 2013; Marginson, 2006; Weingarten & Deller, 2010). For workers within the college environment, a solid understanding of the internal organizational dynamics of a college allows them to have insight on the possible intended and unintended effects of policy decisions on the work flow and cost structure of the organization. The college environment is becoming increasingly complex, placing more demands on the system and individual institutions. Colleges, in response, need to adjust and reflect the increased environmental complexity in their own structure. In addition, a better understanding of these complexities allows stakeholders to plan change more effectively.

This project contributes to the literature in the theoretical field of organizational studies. This thesis found that increased environmental complexity can introduce new institutional logics
into an institutional environment. Firstly, institutions map their organizational structures to their environmental complexity. Secondly, the addition of multiple conflicting institutional logics can lead to mission incoherence within the institution. These two findings have implications with respect to the effective use of funds and questions whether there is an explicit understanding of whom the college is serving and how the college is serving them.

Currently, within institutional theory, I found there is a focus on institutional convergence. However, this thesis shows multiple examples of actors in local institutional contexts implementing localized solutions which could form a basis for within-sector differentiation.

1.6 Outline of this Thesis

This thesis will be organized into seven chapters. The second chapter is a review of the literature relevant to developing the theory used in this thesis. The third chapter is a description of the theoretical and methodological framework, including the research questions, that drove this thesis. The fourth chapter is a descriptive analysis of the Ontario college system after the changes in the legislation containing an analysis of the system with respect to the theoretical framework. The fifth chapter explores the institutional changes at three Ontario colleges: Seneca College, Lambton College, and Niagara College. The sixth chapter serves as a conclusion to the thesis: identifying major trends in the colleges system, discussing the findings with respect to the academic literature, and identifying possible implications for the colleges and the government, resulting in possible areas for future research.

1.7 Chapter Summary

All academic work done in education draws back to the student and society. How do we more effectively educate or train students so that they become a functioning part of our society?
This thesis is no different. This thesis examines how the addition of functionality to the college system effects the institutional logics of the college. Fundamentally, changes in the institutional logics within a college can have an effect on the daily activities of the individuals within the institution affecting whom the college serves, and how it delivers those services.

Furthermore, colleges, along with almost every organization, have finite resources. As the colleges’ environment increases in complexity, so does the internal complexity of the organization. Each new activity that a college engages in uses some resources that cannot be used for other activities. A more explicit understanding of how environment complexity is expressed within an organization allows for a better examination of how resources are used within the system.

The Ontario provincial government passed two pieces of legislation in the early years of the twenty-first century that directly impacted the role and function of the college sector: The Post-secondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Art and Technology Act, 2002. This study focuses on the changes in the institutional environment of three Ontario colleges in the ten years following these major legislative changes starting from 2002. The institutional environment is framed using three constitutive components as defined by Scott’s examination of healthcare systems: institutional logics, institutional actors and governance structures (Scott et al., 2000). The theory around institutional environment and institutional change is presented in the literature review in the next chapter.
Chapter 2: Literature Review

Postsecondary education in Ontario consists of two major publicly funded sectors: universities and the Colleges of Applied Arts and Technology (CAAT). Historically, the college sector created programming to train workers for direct entry into the workforce, through two- and three-year diploma programs. The university sector’s primary functions, on the other hand, have been to offer undergraduate, graduate, and professional degree programs, and to conduct research. Up until 2000, universities had the legal authority to grant degrees while colleges did not. This binary organization of Ontario’s postsecondary education was developed to be complementary, but in fact there is little coordination between the two sectors (G. A. Jones, 1991).

Colleges were established in Ontario in the 1960s to provide educational opportunities to students that the universities did not serve. From their inauguration, colleges had a different and distinct mission from universities. They focused on providing quality education through hands-on, applied learning; having substantial student services, teaching and learning; and orienting themselves to their local communities (Dennison & Gallagher, 1986; Skolnik, 2004). College programs thus targeted student populations destined to have different lives and careers (Government of Ontario, 1967). They developed a strong identity as providers of educational opportunities for nontraditional and underserved communities, and strove for social equality.

In many respects, the colleges established an identity as being the anti-university\(^5\) (Jencks & Riesman, 1977). From the birth of the colleges, the college system had a different and distinct mission from the universities. The focus of the colleges’ programs was targeted at

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\(^5\) Jencks and Reisman (1977) were referring to the identities of all community colleges across the United States and Canada.
different student populations destined for different lives and careers (Government of Ontario, 1967). At that time, college-bound students likely were not going to attend a university, due to academic or financial issues. Students in the college system aimed for jobs between the skilled and professional occupations, deemed ‘para-professional’ careers by Skolnik (2004).

College program’s pedagogy entailed a significant hands-on component so that graduating students would have the practical skills to enter industry easily. In fact, every program within the colleges was required to have an industry-populated Program Advisory Committee (PAC) so that program outcomes could better respond to industry needs (Government of Ontario, 1967, p.15). This relationship with industry differed between colleges and universities, where a university’s tie with industry was tenuous and in some cases unwanted (Chan & Fisher, 2008; Slaughter & Rhoades, 2004).

As a result of the marked differences between colleges and universities, even from the birth of the colleges, colleges developed a strong identity regarding their function in society and in some cases their relation to the university system.

In 2000 and 2002, the Province of Ontario enacted the Post-secondary Education Choice and Excellence Act, 2000, and the Ontario Colleges of Applied Arts and Technology Act, 2002 that challenged the presupposition of what the colleges should be. The legislation, in addition to now allowing the colleges to make operating decisions at a local-level, began to blur the boundaries between the colleges and the universities by allowing the colleges to offer four-year baccalaureate degree programs in applied studies and engage in applied research. These changes indicated a shift in the role of the colleges in the post-secondary landscape (G. A. Jones, 2009). Along with the changes, each one of the new responsibilities came with a new accountability or governance structure. A number of questions surrounding institutional change arose as a result of
these changes: What new system-wide accountability structures came into being? How did each college adjust structurally to its new activities? How have the new activities challenged the existing belief systems or the culture within each college?

Michael Skolnik, in a paper prepared for Human Resources Development Canada as the William C. Davis Chair in Community College Leadership, argued that the reason for the formation of the college system by the government was to create a set of institutions that was responsive to society’s needs of the time and to address particular social problems. However, he argued that the perceptions of societal needs and problems change over time, and as a result the “most fundamental characteristic of the community college may be its capacity to reinvent itself as the needs and problems that it is asked to address change.” He went on to comment that the ‘plasticity’ of the college is

very difficult for any human organization to achieve, and at every point in the evolution of the community college there have been strong voices declaring that the final destination has been reached and further change would destroy it. Yet the evolution goes on, because that is the essence of the institution. (Skolnik, 2004).

This purpose of this thesis was to explore the changes at three individual colleges as a result of two triggering events: the changes to the Ontario Colleges of Applied Arts and Technology Act, 2002, and the creation to the Post-Secondary Education Choice and Excellence Act, 2000. This research explored how three different colleges, on three different assumed trajectories of differentiation, changed internally in a fixed time period (2002-2012) after the two pieces of legislation were enacted. This research examined the effect of the legislation on the structure of the Ontario college system and the extent of the institutional change that the three colleges have undergone to respond to their new operating environment. Interwoven into the story of institutional change will be new operating activities, new external actors, and institutional strategies for differentiation. This study also explored at how the individual colleges
have changed internally to adapt to the new activities, to the new requirements exerted by external actors and to their community of sister colleges.

This study is grounded in a subset of organizational theory, particularly Scott et al.’s (2000) indicators of institutional change, which examines the changes in three constitutive elements of an institutional environment over time: institutional logics, institutional actors and governance structures. I used a case study methodology to explore institutional change at the three Ontario colleges under examination. The aim of this chapter is to better understand what has been written on diversity in higher education, the effect of marketization and decentralization policies on a higher education system, and the relevant organizational theory that can provide a vocabulary to describe how the colleges have changed over time.

2.2 Diversity in Higher Education Literature

The Ontario colleges were created to increase the diversity of institutional types within Ontario’s higher education system (Government of Ontario, 1967). Birnbaum (1983), and a number of authors following him (Meek, Huisman, & Goedegebuure, 2000; Skolnik, 2005; Van Vught, 2008), argue that institutional diversity, also known as external diversity, within a system leads to increased learning and delivery options available to learners, more educational options in the form of credentials offered, a stronger ability for institutions to set their own missions and adjust to their own environment, increased responsiveness to political and societal pressure, and an overall system that can better resist academic control from government. Many studies of diversity in higher education focus on levels of external diversity, looking at coarse measures of the distribution of institutional types (Birnbaum, 1983; Morphew, 2002; Skolnik, 1986). Other studies provide descriptive accounts and theories of the pressures that lead to more or less
external diversity within a higher education system (Birnbaum, 1983; DiMaggio & Powell, 1983; G. A. Jones & Young, 2004; Meek, 2000; Teichler, 2008; Van Vught, 2008).

Internal diversity, on the other hand, refers to the differences within an institution. As a college responds to new markets, potentially taking on new missions, the number of different types of activities that the college engages in increases. Clark Kerr described the tremendous complexity and internal diversity of the University of California, as:

(it) had operating expenditures from all sources of nearly half a billion dollars, with almost another 100 million for construction; a total employment of over 40,000 people, more than IBM and in a far greater variety of endeavors; operations in over a hundred locations, counting campuses, experiment stations, agricultural and urban extension centers, and projects abroad involving more than fifty countries… Over 4000 babies born in its hospitals. It is the largest purveyor of white mice. It will soon also have the largest primate colony. It will soon also have 100,000 students – 30,000 of the at the graduate level; yet much less than one third of its expenditures are directly related to teaching… (Kerr, 1963, p.8)

Although Jones (1996) noted that higher education institutions with high levels of internal diversity are able to serve many constituencies6, internal diversity also comes with increased administrative scale and institutional complexity. Colleges, as with any other institution, have finite resources. As a result, internal diversity creates a tension within the institution as money and resources used on one type of activity cannot be used for other activities, thus increasing the need for overall institutional direction-setting to guide decision-making.

With respect to the higher education literature, the subject area of internal diversity is under-served. Although there has been some work looking at internal diversity, most papers about internal diversity look at an institutional programmatic diversity in the universities in terms of program areas and levels of study (Huisman, 1998; Teichler, 2006). As a result of the

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6 Jones (1996) noted that in the case of Canadian Universities internal diversity allowed them to serve many constituencies.
legislative changes in the Ontario college sector, there were new programmatic additions (in the form of degrees) to the colleges. However, the Ontario college sector also received increased abilities to find new revenue sources, coupled with a new decentralized accountability structure; this creates a limitation of the above internal diversity literature with respect to the situation of the Ontario colleges.

2.3 Marketization and Decentralization of the Ontario College System

In Ontario and in Canada, the majority of students attend publicly funded higher education institutions (G. A. Jones & Young, 2004). Governments have employed one of two basic steering mechanisms to guide the higher education sectors to produce the desired outputs: either a rational planning and control model, or a form of a self-regulation model (Gornitzka & Maassen, 2000). In the rational planning and control model, governments assume they have complete information and knowledge to make the best decisions. The decisions are implemented through control of internal processes of institutions. However, in the self-regulation model, the government determines what satisfactory results are, and relies on monitoring and feedback to determine whether adjustments to policy need to be made (Gornitzka & Maassen, 2000). In the implementation of the self-regulation model, governments have a number of steering mechanisms to alter the direction of higher education institutions, including a combination of targeted funding, strategic and planning dialogue, regulation in a reduced form, and centralization of organization structures (File, 2006). Any of these three instruments can provide the incentives, or in some cases the disincentives, to certain behaviours. With respect to system change and diversity, those inputs can be used to stabilize the structure of a higher education system or they can allow the structure of the higher education system to self-determine.
Jones and Young (2004) argue that Canadian federal and provincial governments had begun to adopt market-driven policies to stimulate competition in the higher education sector. Marketization policies for these public-sector institutions intended to drive efficiency through making the institutions more accountable to their stakeholders. The implementation of these policies has been through the introduction of decentralization and increasing competition for both public and private funds.

Decentralization of decision making has been a common theme in the evolution of government steering mechanisms, with Karlsen (2000) arguing that decentralization has been a theme of large-scale educational reform. In his view, governments felt that decentralization would allow programs to be more geared to the local context, aid in the innovation process where local actors would more likely implement solutions if they were part of the problem-solving process, and give the flexibility to local actors to better obtain new local resources.

Government plays less of a regulatory role in a decentralized system. The government gives individual institutions more autonomy. Marketization policies force higher education institutions to be more responsive to a larger number of stakeholders. Coupling the effects of decentralization and marketization, institutions are forced to build organizational structures to respond flexibly to new stakeholders and provide accountability to those stakeholders.

### 2.3.1 Mission stretch.

The colleges are particularly susceptible to mission stretch. The traditional focus of the colleges on training have opened up to new roles including, but not restricted to, providing access mechanisms for diverse student populations, supporting economic development through applied research, and supporting lifelong learning opportunities (Slaughter & Rhoades, 2004).
In their most basic form, organizations strive to complete some achievable goal or mission. There are a number of reasons that colleges increase the scope of their activities. First, colleges have ambiguous and hard to measure outputs (Manning, 2013). For example, a college is not defined as successful solely based on the number of students, retention rate or the employability of its graduates. Furthermore, many of the outputs of the college are difficult to measure; for example, learning in the classroom, research output, or contribution to economic development. As a result, internal actors can interpret and justify almost any reasonable action as in the best interest of the college. The lack of clearly-defined technical outputs and the difficulty of measuring them make it challenging to limit the scope of what is an acceptable activity for the college to engage in.

Second, inputs into the college are diverse and can be relatively unpredictable (Manning, 2013). The number and types of stakeholders in the system vary widely, including levels of governments, students, industry, and faculty. Pulls from different stakeholders lead to conflicting outcomes. For example, a college could be asked to provide an environment that leads to equality and accessibility, while simultaneously providing an environment for specialization and innovation. The unpredictability of inputs into the system forces colleges to build capacity to be ready for anything, at the risk of underutilization.

Third, the autonomous nature of work done in the college creates an environment where there are conflicting roles or interests (Manning, 2013). Faculty, staff and administration roles create multiple, often conflicting roles in the institution. Faculty are responsible for delivery of courses in the classroom and focus much of their time on course content and teaching methodology. Whereas administrators have the responsibility to maintain the services, structure and budget that support the missions of the college.
Institutional resources are spread across a number of competing missions (P. Scott, 2007 as cited in Reichert, 2009). These ‘stretching’ activities take place because institutions or sub-units within institutions feel that those activities will give them access to new resources. The impact of new activities can have an overall effect of hurting the coherence of activities within an institution (Reichert, 2009). The lack of coherence and increase of complexity they cause is observed through the organizational structure of the college; competing, symbiotic and/or collaborative interactions between those within the institution; and a number of perspectives on the role of the college within the larger society.

2.4 Organizational Studies on the Colleges

As the colleges shape and respond to their environments, taking on new activities, we need to be able to conceptualize those changes. Organizational theory can provide a vocabulary and set of theories that can help understand these changes; it can provide a frame for thinking about the problem.

Organizational theory is a set of theories that examine organizational structure and change. Under the umbrella of organizational theory there are a number of competing and sometimes seemingly contradictory theories. However, in many cases, these theories actually provide different frames of understanding an organization. As a result of these different ways of viewing an organization, organizational studies can become complex. All studies of organization, in fact, have some limitations in their conclusions entirely based on the frames of the organization that the study potentially does not consider. Zucker (1987) suggests that in order to better understand organizational change, a study must examine a phenomenon from multiple theoretical lenses to determine the usefulness of that theory to explain the findings.
Organizational theories used to describe the colleges have fallen under Scott’s open natural systems classification. The open natural systems set of organizational theories describe the two-way interaction between the organization and the environment. The organization operates by extracting inputs and transforming them into outputs. The outputs from the organization go back into the environment, thereby influencing the environment (Scott, 2007). Furthermore, within the organization, there are actors, individuals and/or sub-organizations, that work towards self-perseverance. The actions of the organization work towards a rational goal, but may stray into activities that are auxiliary to its main purpose and not viewed as entirely efficient. In this section, we will explore organizational ecology, resource dependence, Weick’s model of organizing and loosely coupled systems, and the institutional theories of understanding organizational change. Each theory provides a paradigm for understanding organizational change, emphasizing a different aspect of the organizational ecosystem.

2.4.1 Organizational ecology.

The organizational ecology approach to understanding organizational change borrows from biology’s population ecology theory. Organizational ecology theory views the fate of the organization as being entirely determined by the operating environment, with the organization having no effect on the environment. Accordingly, organizations try to find a niche within a material-resource environment (Hannan & Freeman, 1977); the environment of available resources determines which organizations or organizational forms survive. From an economic approach, the material-resource environment provides stimuli to the organization in the form of supply and demand; organizations change to fulfill demand for new services, and where change is inadequate to address the demand, new organizations are introduced. Thus, organizations in the organizational ecology perspective are viewed as entirely passive.
2.4.2 Resource dependence theory.

The resource dependence perspective of the organization views the organization as active in its environment. The theory assumes that organizations are dependent on resources from different sources (Pfeffer & Salanick, 1978). It allows for organizations to have agency; it states that organizations that can strategically acquire more resources will survive. At the basis of this perspective is the belief that organizations can alter their environment to extract additional resources. The corollary is that the more reliant an organization is on a source, the more that source gains power to influence the direction of the organization. In a competitive environment, organizations will position themselves to gain an advantage over others. Under the resource dependence theory, it would be impossible to examine an organization without looking at the environmental context under which it operates.

2.4.3 Weick’s model of organizing and loosely-coupled systems.

Weick’s model of organizing and loosely coupled systems examines how the process of organizing happens and the results. He views the resource inputs from the environment as uncertain and ambiguous with unlimited possibilities (Weick, 1969; Weick, Sutcliffe, & Obstfeld, 2005). For example, with respect to the college, system inputs could include student demand for a program, industry support, union reactions, government funding, etc. As a result, the organization and the internal actors try to create a narrower range of possibilities leading to a psychologically-acceptable level of certainty. The organizing process for individuals within the organization is to first construct a view of their environment, then make sense of it by selecting a response that robustly narrows uncertainty, and then retain that response by creating routines and patterns for interaction. A possible result of this type of organizing process is that a number of
specialized sub-structures in an organization can respond to various inputs. This organizing
process leads to loosely-coupled systems.

In higher education, organizations do not adhere to theories guiding tightly-coupled
institutions where all sub-units within an organization work efficiently and rationally towards an
overall goal. The sub-systems within the higher education organization are autonomous and do
not necessarily work to achieve the same ends.

On the other hand, sub-units within a loosely-coupled organizational structure interact
while preserving the sub-unit’s identity (Weick, 1976). Sub-units can have strong or weak effects
on other sub-units within the organization. The concept of the loosely-coupled organization
could be visualized using a spider’s web, where the spider’s web is the organization and the sub-
units are points on the web. When pressure is exerted on one point of the spider’s web, some
parts of the spider’s web react more to that pressure than other points of the spider’s web.
Likewise, when an input is acted upon by a sub-unit, the reactions of other sub-units range from
large to nearly no effect.

Theoretically, the concept of loosely-coupled organizations created a problem for
organizational theory because it could not explain how loosely-coupled organizations remained
relatively stable over time (J. W. Meyer & Rowan, 1977). This problem prompted organizational
researchers to find other explanations that ensured organizational stability. This mechanism was
the institution with its shared beliefs, giving birth to institutional theory (J. W. Meyer & Rowan,
1977).

2.4.4 Using the term institution.

Definitions around the concept of institution usually have words regarding shared rules or
beliefs (Barley & Tolbert, 1997; J. W. Meyer & Rowan, 1977), schema (Giddens, 1984), or
social structure (Selznick, 1957). The term *institution* relies on there being a constraint on the decision-making options because of the mental and social structures associated with being part of a particular organization.

Selznick pointed out that organizations become institutionalized when social actors within the organization find special meaning beyond the specific purpose of the organization (1957, as cited in Scott, 1995, p.69). With that definition, an institution is more than an organization. Organizations become institutions when the organization becomes more than its rational output (Selznick, 1957). In other words, when an organization develops a sense of purpose and structures, not central to its overall mission, but to support it, it becomes an *institution*.

An excerpt from Scott (2001, p. 48) transmits some ideas behind the term institution:

> Institutions are social structures that have attained a high degree of resilience. [They] are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life. Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines, and artifacts. Institutions operate at different levels of jurisdiction, from the world system to localized interpersonal relationships. Institutions by definition connote stability but are subject to change processes, both incremental and discontinuous.

### 2.4.5 Institutional theory.

Institutional theory was the academic response which incorporated and examined the social dynamics of organizations. The main tenet of institutional theory is that organizations have shared beliefs and myths (J. W. Meyer & Rowan, 1977; J. W. Meyer & Scott, 1983). Within an organization, as ideas and processes become institutionalized, the organization begins to create formal rules and procedures, and informal cognitive schemes. The cognitive schemes “provide frames of meaning which guide human action and therefore are similar to cultural systems” (Thoenig, 2011, p. 5). Actors within the organization use these cognitive schemes to guide
decision-making, and as a result, these constructs “[shape] the imagination of the actors about alternatives and solutions” (Thoenig, 2011, p. 5).

The development of institutional theory has been fragmented and evolving over the last fifty years. Early institutional theories state that institutional environments could be broken down into three constitutive elements: regulative, normative and cultural-cognitive (Scott, 2001). These environmental elements exert pressure on, and receive pressure from, an institution. The regulative elements of an institution’s environment are the rules, procedures and external structures that an institution needs to adhere to. The normative elements are usually based on a professionalism argument, wherein actors of the same profession will act in accordance with the principles guiding that profession. For example, doctors in a hospital will all act in a similar fashion irrespective of the particular hospital each one works in. The cultural-cognitive element refers to belief systems of individuals forming the organization. It defines the way that the organization or the individuals within the organization think about solving problems and the purpose of the organization’s existence. Many institutional theory studies in the 1980s spent much effort analyzing the interplay between these elements (Scott, 2008). These earlier institutional theories posited that institutional change occurs from the top-down.

The next iteration of institutional theory, institutional isomorphism, was introduced by DiMaggio and Powell (1983). This form of the theory formed the base for much of the application of institutional theory on higher education (Meek et al., 2000; Morphew, 2002). It asserts that institutions slowly become the same over time. DiMaggio and Powell (1983) defined mimetic, normative and coercive mechanisms that induce convergent institutional change. Mimetic isomorphism is based on uncertainty, prestige and legitimacy. Mimetic behaviour suggests that when reasons for success are ambiguous, organizations are uncertain as to what
leads to success and try to mimic successful organizations. The main driver for the institution is to increase their legitimacy and prestige in the overall society. A study by Morphew (2002) supported this theory of mimetic isomorphism. He found that less selective colleges were more likely to change their name to university than their more selective counterparts. Institutions used a name change to show a higher level of prestige, and as a marketing technique for attracting students (Morphew, 2002). Normative isomorphism is based mainly on professionalization (DiMaggio & Powell, 1983). It states that professional networks propagate normalized structures and processes from the originating professional network. Coercive isomorphism is based on pressures external to an institution (DiMaggio & Powell, 1983). It provides that formal and informal pressures from other organizations, government, and society form the expectations and influence the actions of similar organizations. An example of coercive isomorphism might be a government regulation on a sector forcing institutions to behave similarly.

The institutional isomorphism perspective states that there are pressures that work to homogenize institutions within a system (DiMaggio & Powell, 1983). The institutional environment further reinforces institutional inertia. An institution’s belief systems, professional networks and regulatory framework provide real and supposed constraints on options used for decision-making.

In this thread of theory, institutions are not built to be innovative; rather, over time, they become similar. Researchers maintained that institutional development is less about the effective and efficient delivery of the particular institution’s main function, and more about maintaining legitimacy from society. Under this theory, these institutions would be entirely controlled by government and the professions and not by market forces (H. Meyer & Rowan, 2006).
2.4.6 Theoretical framework: Defining institutional change.

According to the definitions above - an organization is an institution or it is not (Barley & Tolbert, 1997; Zucker, 1977); there is a binary definition. However, the complexities of evaluating cultural systems makes the determination less conclusive. Organizations are a result of many internal processes and constructs, all having varying levels of being institutionalized.

The concept of institutional change looks at the processes of institutionalization and deinstitutionalization. The point at which an organization or a process becomes institutionalized is not well-defined. It is difficult to pinpoint when either the organization develops, or the process becomes, a cultural-cognitive schema that binds the decision-making process (Barley & Tolbert, 1997). Conversely, deinstitutionalization processes remove previously institutionalized practices from the decision-making schema. The impetus for institutional change is usually a global change to the environment; for example, economic shifts, new technologies, or new regulations (Scott et al., 2000). The seed of incremental institutional change begins with a disruption that affects the cultural-cognitive element of the institution. As the cultural-cognitive element changes, it slowly becomes the norm and the natural basis for institutional decision-making.

The institutional theory perspective defined an organizational field - one with similar organizations, regulations, and professional practices. Organizations, in this perspective, contained social structures that were influenced by this institutional environment that guided decision-making. When characterizing institutional change, Scott et al. (2000) examined both the material-resource environment, a construct related to the resource dependence theory and the institutional environment, a construct related to institutional theory. The analysis of the two environments draws the reader to recognize that organizations are a product of both environments: one concerned with the organization’s technical inputs and outputs, and the other
stresses the social regulative and normative systems of the organization. In many studies, the institutional environment of institutional theory has been used in concert with the material-resource environment of the resource dependence theory to gain a fuller picture of institutional behaviour (Scott et al., 2000; Zucker, 1987).

2.4.6.1 Material-resource environment.

The material-resource environment is an economic construct. From this perspective, Ontario colleges exist in a material-resource environment; one in which the college extracts resources from the environment, transforms them, and produces an output (Scott et al., 2000). The primary process for the Ontario colleges is to take potential students into school, transform them through an academic program, and output them as skilled workers for industry.

The conceptual framework we could use for analyzing the material-resource environment is the demand for the colleges’ services, supply of the colleges’ services and the technology or process used to transform inputs into outputs (Scott et al., 2000).

The demand side factors are the number of potential students available for the colleges to offer its services. The colleges’ primary service is in its academic programming where the traditional customer is the potential student. Colleges can increase demand of their programming by reaching new markets of students. Different types of academic programming are aimed to be attractive to different student markets; examples of different student markets are recent high school graduates, lifelong learners, recently unemployed or international students.

The supply-side factors are the number of options that the market provides to supply the services, in our case academic programming. Internal to the Ontario college system, the supply of college services was controlled by the government through the legislation so that colleges did
not compete with each other. However, the other possible suppliers of education would be the universities, private and online institutions.

The technology that the colleges use to transform input into outputs refers to the combination of infrastructure and knowledge necessary for each college to offer its academic programs and auxiliary services.

2.4.6.2 Institutional environment.

The institutional environment is a construct originating from institutional theory. As mentioned earlier, the institutional environment consists of belief systems, normative networks and regulative frameworks that guide how decisions are made within the system. These decisions affect who the institution chooses to serve, and how they serve those constituents and stakeholders. Scott et al. (2000) suggests concentrating on the three components of institutions when analyzing an institutional environment: institutional actors, governance and institutional logics. These three institutional components map on to the three institutional elements, namely the cultural-cognitive, regulative, and normative elements of an organization.

2.4.6.2.1 Institutional actors.

Institutional actors refers to the people and organizations involved in making decisions regarding a system (Scott et al., 2000). An institutional actor can be an individual or sub-unit within an organization. Institutional actors generally reflect the cultural-cognitive elements of an institution (Thompson, 1984). Action of actors tend to be guided by the constraints of the institution. However, actors very often couple their interests and, in many cases, the need to self-preserve.

Actors are important to study because they determine the what and the how of institutional actions New individuals within a system have the opportunity to inject new ideology
into a system or possibly cause an incremental loss of system history. The establishment of a new actor in an institution can affect the institutional logics within the institution. The addition or removal of any organizational actors in the system results in a shift in legitimate power and decision-making capability. The new actor will be guided by the existing beliefs, rules and norms within the environment and will also reproduce those rules and norms (Scott et al., 2000). However, the actor can also alter the institutional environment by introducing new, competing institutional logics, and by creating or altering processes within the institution.

2.4.6.2.2 Governance.

Governance structures refer to the oversight and accountability mechanisms that an institution must adhere to (Scott et al., 2000). Governance structures examine the regulative and normative elements of an institution. With regards to the college system, a study of changes in governance structure can look at changes of external and internal accountability structures, local governance powers, and changes in external structures.

Governance models typically have been classified under community, state or market models (Scott et al., 2000). The influence on decision-making originates in response to different sources in each model: community, the people forming a sense of identity and purpose within an organization; state, the bureaucratic state which forms public policy which is enforced by public servants; or market, competition from similar organizations for material benefit. Streeck and Schmitter (1985) proposed an additional model that is useful in this thesis – the association model. The association model refers to organizations with common purposes reaching agreements to further their overall interests. An interesting facet about governance models is the underlying belief systems that organizations have when they are a part of a particular governance model. For example, in a state model of governance, organizations are, in a sense, ruled.
Organizations fear punishment and make decisions that minimize risk. In the market model, organizations compete to have an advantage over other organizations and make decisions to benefit themselves. However, in an association model, organizations work together to possibly achieve a monopoly status in negotiating more influence over their environments, and individually, these organizations gain more certainty over their socioeconomic outcomes.

2.4.6.2.3 Institutional logics.

Institutional logics refers to the belief system that an organizational field is built on (Scott et al., 2000). The belief system consists of what individuals in the system think the system is and what they think the system should be. Institutional logics map on to the cultural-cognitive and the normative elements of an organization. Logics in institutions generally lead to organizational action in that institutional logics are the institution-specific cultural and belief systems that guide the decision-making of institutional actors. These logics are the goals and values that exist in the organization which sometimes are transmitted down from the organizational-field or sometimes are organizationally-specific (Zucker, 1987).

Generally, there is a primary or dominant logic for action within the system; the primary logic can be viewed as the natural way of operating the organization. In the colleges, a dominant logic may be to promote student success through applied learning. From that logic, it could direct institutional actors as to which potential students to recruit from, what kind of programming is appropriate and how that programming is to be delivered. Logics provide actors a guideline on how to achieve the overarching value (Thornton & Ocasio, 1999).

Changes in the material-resource environment can create secondary logics (Scott et al., 2000). The secondary logic can compete for resources within the organization and affect the decisions that are made in an institution. The new logic could either compete with or
complement the existing primary logics. Secondary logics can supplant a primary logic, coexist with a primary logic or peter out if the secondary logic is not accepted by the organization.

2.4.6.3 Interrelation of material-resource and institutional environments.

The material resource environment and the institutional environments do not exist in isolation from each other (Scott et al., 2000). Each environment has an effect on the other. The material-resource environment can be understood as the environment external to the organization that both supplies it with resources and consumes its outputs. In fact, institutional environments exist in response to the complexity expressed in the material-resource environment (Scott et al., 2000; Thornton & Ocasio, 1999). Institutions react to the environmental complexity by creating processes and structures (i.e., governance processes and possibly institutional actors). The alteration of one component of the institutional environment affects the other components as well. New governance processes may require new actors to enter a system or possibly alter the shared beliefs; or new actors guided by the interests of their position could create new governance processes or shared beliefs within the institution. As the processes and organizational structures become engrained in the operations of the institution, a new institutional logic is created as a basis for natural decision-making within the institution, hence altering the overall institutional environment.

On the other hand, the constitution of the material-resource environment is also reliant upon the institutional environment, but in a slightly more abstract way. The material resource environment only exists if it is part of the understanding of the operation of the institution (Greenwood, Hinings, & Suddaby, 2002). In other words, institutional logics provide the guidelines on how certain resources are used or accessed. If certain components of the material resource environment are not considered part of the institutional environment, then that portion
of the material-resource environment does not exist from the institutional perspective. The logics or belief systems govern the overall behaviour of the institution, guide the goals of the institution, determine how to accomplish those goals, and therefore impact what external resources are available to do so.

2.4.7 Recent developments in organizational theory.

Organizational theory has stressed that exogeneous factors drive organizational change. The organizational ecology perspective looked at an organization as passively finding a niche within a material-resource environment. The resource dependence theory situates the organization as an active participant in shaping its environment. In this perspective, the institutional environment can alter the material resource environment is through active participation in the material-resource environment. Institutions can lobby the government for funding or new activities, and create partnerships to offer new programs or services. Theoretically, this type of environmental change can be a result of entrepreneurial behaviour of existing institutional actors.

The set of traditionally-accepted organizational theories characterized the environment, and the organization, but have not done a complete examination of the actors within the organization. According to Amenta and Ramsey (2010):

the interaction of exogenous convergence mechanisms with endogenous factors, however, remains undertheorized. Sociological institutional arguments, like other types of institutional arguments, largely do not address the conditions under which institutions change, beyond black-box expectations of ‘exogenous shocks’ that may disrupt or render less salient norms, schemas, and their embedded resources. (p. 20)

In other words, the current theory describes the reasons for institutional change as being from changes to an organization’s external environment. However, I did not find much written
on how the internal makeup of organizations interacts with the external environment to produce institutional change. In the most recent iterations of institutionalism, actors in organizations are given more agency and are actualized with institutionally-directed thought. The actor can be constructed as a person or a sub-organization within an institution. These institutions are constructed by “man-made rules and procedures as the building blocks” for decision-making (H. Meyer & Rowan, 2006, p. 6). However, institutions are still repositories of cognitive schemes for actors to make sense of those decision-making processes. The emphasis in Meyer and Rowan’s version of institutional theory is how people actively construct meaning within institutionalized settings. The current theories do not fully reflect the impact of active actors in the institutional environment.

2.5 Chapter Summary

Ontario’s colleges are relative newcomers into the higher educational environment. They were created to complement the role of the university. As a result, the colleges have developed a strong identity in their purpose in the higher education system. In the last two decades, higher education’s environment has changed. Governments have contributed a lower percentage of an institution’s revenue and have moved away from the classical steering models. Hence, higher education institutions, colleges in particular, have had to look into their environments to find non-traditional ways to diversify their revenue streams. The overall effect on operating environment is an increased complexity, forcing colleges to include new components in their missions.

Further, the increased environmental complexity has led to increased internal organizational complexity. The literature suggest that the colleges will adjust the internal structure of their organizations to make sense of the increased environmental complexity.
Institutional theory has been used by organizational theorists for over 40 years and continues to be used. However, the theory evolves by trying to explain the dominant trends of the time. The original formulation of the theory was created when bureaucracy was perceived to be the dominant form of organizational structure involving strong top-down power hierarchy, but it did not account for the autonomous nature of some subsystems. As a result, many of the studies revolved around loosely coupled systems assuming compliant actors. The next iteration of institutional theory, isomorphism, occurred during the 1990s. These theories emphasized the growing homogenization within organizational sets in response to external environmental conditions (DiMaggio & Powell, 1983; Morphew, 2002). At the time, organizations were viewed as being in a helpless state which forced them to adapt to the greater globally-enforced institutional contexts (Neave, 1996). More recently, the theory has presented organizations as being more entrepreneurial, with the idea being that the local actor has more influence to affect the direction of institutional development (Thoenig, 2011). Although the overall theory has changed in terms of mechanisms for institutionalization, the central tenet of institutional theory has remained the same: decision-making within the institution is guided and restricted by cultural-cognitive, regulative, and normative mechanisms (Scott, 2010). Pulling from other organizational theories, exogeneous forces provide an impetus for institutional change.

The theories provide a wide range of language to use. Although there are several shortcomings to institutional theory, it does provide a rich language to describe organizations and to hypothesize about the reasons for changes. The flexibility provided by institutional theory as a subset of organizational theory allows institutional theory to borrow concepts and work in conjunction with other organizational theories (Scott et al., 2000; Zucker, 1987). For example, resource dependence theory emphasizes that organizations adjust their behaviour based on the
resources available from external agencies, while institutional theory focuses discussion on external regulative agencies which determine the overall legitimacy and potential rewards that an organization can receive from compliance.

This chapter has framed the role of Ontario colleges within the Ontario higher education system. The literature review examines concepts of diversity, marketization, decentralization and mission stretch with respect to the colleges, and then frames the colleges as organizations. The second half of the chapter reviewed several broad, but pertinent organizational theories that could provide global explanations for institutional behaviour. Finally, this chapter outlines a theoretical framework to examine institutional change, following a model suggested by Scott et al (2000). The study suggests examining institutions from two theoretical lenses: the resource dependence theory and institutional theory. The theories lead to the creation of the material resource environment and the institutional environment respectively. The formulation of the theoretical framework leads into the research questions that this thesis answers.
Chapter 3: Methodology

In 2000 and 2002, the Ontario government introduced two pieces of legislation that directly impacted the Ontario college sector. Prior to 2000, the Ontario colleges were not allowed to offer degree programming. The Post-secondary Education Choice and Excellence Act, 2000 included a provision for a pilot program for Ontario colleges to start offering 4-year degree programs in applied areas. Built into the legislation was a new quality assurance mechanism that the colleges needed to satisfy in order to offer degrees. The second piece of legislation, the Ontario Colleges of Applied Arts and Technology Act, 2002, changed the governance structures affecting the colleges and explicitly added applied research as a permitted activity for the colleges.

The underlying premise of this thesis is that the changes in legislation in 2000 and 2002 laid the foundation for institutional change. The purpose of this study was to examine if and how those legislative changes affected the institutional environment of the system and the individual participating colleges within the system in the ten years between 2002 and 2012. This study is a series of three case studies of Ontario colleges. The study uses historical and archival documents, and interviews at each college to understand the extent of the changes.

A thesis written by Charles (2011) outlined how these two pieces of legislation came into being. My thesis is, in a way, a continuation of her thesis, in that it looks at how the legislation affected the college system, both at a system level and an institutional level. The purpose of this thesis was to characterize the changes that have happened in the decade after the legislation was introduced.
3.2 Methodological Framework

In this section, as suggested by Yin (2009), I will describe the ‘heuristic’ that I used to connect the empirical data and the research questions of my study, then the process of analysis that led to the findings and conclusions of the study. I will begin by reviewing the epistemological orientation of the study and then continue to describe the methods that were employed.

3.2.1 Epistemological orientation.

"A map is not the territory it represents, but if correct, it has a similar structure to the territory, which accounts for its usefulness" - Alford Korzybski (1933, p. 58)

This thesis provides the reader with a framework for understanding the college system. However, the creation of this framework is filtered through my world view and understandings. As different types of maps provide a structure for understanding a territory from different perspectives (for example, a political map versus a topographical map), this thesis is limited to the lens of institutional theory. Even though subject to my personal biases and filters, the work done in this thesis can still prove to be useful to the reader by identifying an explicit framework for understanding institutional change.

I entered the OISE Ph.D. program with the intention of trying to understand how strategic and resource decisions were made within a college. In order to better understand the college system, I felt that I needed to combine other’s understandings of the college system with my understanding. As such, my methodological approach required me to construct a version of reality from multiple sources. When choosing a method of inquiry, I chose a method that I personally felt comfortable with and served the interest of the research questions that I wanted to
answer; therefore, in this instance, I chose a case study approach using archival and interview data.

### 3.2.2 Research questions.

Drawing from my experiences, I knew that the colleges were in the midst of profound change, especially surrounding the new ability to offer degree programs. I wanted to know whether these changes were bad or good for students and the system. As I matured as a Ph.D. student, I started to understand that my role should not be to judge the direction of the change, but to analyze it. I started reading many papers about colleges in other jurisdictions’ forays into degrees, leading me to the concept of academic drift. My supervisor introduced me to a book, called *The Mockers and Mocked*, which explored institutional isomorphism in higher education.\(^7\)

In the process of developing my thesis proposal, I stumbled onto Scott’s analysis of change within the institutional environments of healthcare conglomerates in the San Francisco Bay area.\(^8\) He defined the institutional environment as having regulative, normative and coercive elements that shape the possible options available when making decisions. In his book, he determined that there was change in the institutional environment when there were identifiable changes in the institutional logics, institutional actors and the governance processes within the organizations and organizational field. The structure of his analysis led to my research questions regarding exploring institutional change in the Ontario college system between 2002 and 2012.

As supported by Yin (2009) and Eisenhardt (1989), the beginning of this research journey began with developing research questions. The purpose of research questions is to provide

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guidance in the directions of the study and the systematic collection of specific types of data. Good research questions, according to Yin, are grounded in a theoretical framework and provide boundaries for a case study research project.

The intention of the study was to determine if and to what extent the colleges changed internally in response to a triggering event, in this case, the changes in legislation. I used the institutional environment theoretical framework introduced in the previous chapter to act as an anchor to build my research questions around. Later in the study, the definition of the research questions also allowed me to determine criteria for case selection and to determine which data were relevant.

3.2.2.1 Main question.

How have Ontario colleges, as institutions, changed in response to the provisions associated with the statutes passed in 2000 and 2002?

3.2.2.2 Sub-questions.

How have the institutional logics within the college changed since the new provisions in the legislation? How have these changes affected belief systems around its activities? To what extent do the current institutional logics differ between colleges?

How have institutional actors changed since the implementation of the new provisions in the legislation? How have these changes affected the organization of the college? To what extent do institutional actors differ between colleges?

How have governance structures changed since the new provisions in the legislation? How have these changes affected college power structure and decision-making processes? To what extent do the governance structures differ between colleges?
Throughout the study, the research questions maintained the focus of the thesis to examining the institutional environment, consisting of the institutional logics, the institution’s actors and the governance structures. The institutional environment provides bounds for options available when making decisions and is a profound indicator of what an institution does, who it serves, and how it serves.

3.2.3 Identifying significant institutional change.

In alignment with the three institutional components, three main pieces of evidence indicating significant institutional change in this thesis are the addition or deletion of institutional actors, new governance processes, and boundary changes with respect to activities. Are the colleges dealing with the same actors before and after the legislative changes? Are the colleges making decisions differently than they were before the legislation? Are the colleges changing the criteria that they used when choosing which activities to engage compared to before the legislation?

3.2.3.1 Addition or deletion of institutional actors.

Changes in institutional actors will be classified in two ways: one, the addition and deletion of the organizational actors within the college system; and two, the addition and deletion of organizational actors within each college. As discussed in the literature review, any changes in organizational actors result in shifts in power relationships and pressures on other actors within the system to fulfill the needs of new actors.

3.2.3.2 Introduction of new governance processes.

A new governance process indicates that there is a change in the institutional environment reinforcing changes in institutional logics and determining the use of institutional
actors’ resources (Scott et al., 2000). New governance processes are created in response to new activities that the organization has introduced or to the pressures that external agencies place on the organization.

3.2.3.3 Significance of boundary changes (i.e. institutional logics).

The institutional environment creates a series of mental, social, and regulative constructs that act as boundaries when charting courses of action. Changes in those boundaries can present themselves as new considerations that institutions have to make before making a decision, or new possible activities that can fit into their operations. These boundaries can affect whom the institution serves and how they operate.

3.2.4 Case study methodology of studying organizational change.

This study employed institutional theory as a framework for understanding change in the college system. Studies using a process theory approach rebuild the processes through direct observation, archival analysis and multiple case studies (Yin, 2009). Case study analysis, in particular, has been used because of its nature to produce rich descriptions of complex phenomenon. A case study is a study of a single phenomenon in a particular time period for the purpose of understanding a larger class of similar phenomena (Gerring, 2004).

3.2.4.1 Case study.

I found that the case study methodology best fit with the research questions I developed and also aligned with my epistemological orientation. Yin (2009) suggests that the explanatory case study approach is most appropriate when the research questions are focused on understanding the how and the why of a contemporary social process, over which the researcher has no control. This case study examined the differences between institutional components (i.e.,
institutional logics, institutional actors and governance) of three colleges in the Ontario college system, which are clearly at arm’s length to this researcher.

3.2.4.1.1 Unit of analysis.

In the definition phase of a case study, case study researchers can struggle with determining the appropriate unit of analysis. However, upon looking at studies specifically focused on institutional change, many studies opted to do a multi-level analysis: for example, public art museums (DiMaggio, 1991), elementary schools (Scott & Meyer, 1994), and health care systems (Scott et al., 2000). A multi-level analysis is useful because individual organizations belong to an organizational field, and the organizational field, in some cases, defines the context under which the organization operates. In the case of the Ontario college sector, all colleges were created and regulated using the same processes from the provincial government. This relationship with the Ontario government created an institutional context that no public Ontario college could escape from.

The question of choosing a unit of analysis was left to deciding whether I should do only a system-level analysis or a multi-level analysis. I opted for a multi-level analysis because I thought that there could be richness in the descriptions of how individual colleges in different environments across Ontario reacted to the legislation, and as a result I could provide an analysis of the effect, possibly uneven, across the individual colleges in the system. Specifically, this thesis focus on two levels of analysis: A system-level analysis looking at organizational field of the Ontario colleges, and a college-level analysis examining how individual colleges respond to the changes in their organizational field.
All institutions operate in both an institutional and a material-resource environment. The two environments influence the decisions that are made within the institutions and a full picture of the two environments leads to a better understanding of the institutional context.

The aggregate of inputs and stakeholders of the Ontario college system produces the organizational field within which each college operates. The organizational field needs to be "examined as a whole, as an activity making rules, and defined an institutional context within which each single organization plots its courses of action" (Thoenig, 2011, p. 5). In this study, in order to appreciate the changes at individual colleges, it was necessary to examine the colleges at a system-level.

Institutional change can radiate from the organizational field or originate directly from within an institution. Changes in the organizational field are considered as exogenously-driven. Exogenously-driven change assumes a shock to the institutional system, either through legislative changes, introduction of new technology, or any other dramatic changes to the operating environment (Scott et al., 2000). In the context of this thesis, the Ontario colleges experienced a shock between 2000 and 2002 in the form of significant legislative changes. Field-level changes started as changes in the legal and regulative frameworks that affected all of the Ontario Colleges. Exogenously-driven change forces the institution to reform the way it interacts with the environment, possibly creating new internal actors and governance structures, and thereby creating new understandings of how decisions need to be made in the new internal and external environment. This type of change forces the institutional logics to change more quickly than they would otherwise. Institution-level change is a by-product of the colleges taking those exogenous pressures and applying them to their internal context.
3.2.4.1.2 Validity.

Yin (2009) suggests a number of research design concepts used to ensure validity in the case study design. In the research design and implementation, the researcher should attempt to address construct, internal, and external validity.

Construct validity is a concept in research design that refers to whether the researcher is measuring what they think they are measuring. In case study research, Yin (2009) indicates that in the research design the researcher should use multiple sources of evidence and ensure that multiple sources of evidence lead to the same specific finding. Readers of the study should be able to determine the chain of evidence and how each finding was arrived at. Lastly, as suggested by Yin (2009), key informants should review the case study report to ensure accuracy.

Internal validity is a concept that originated out of experimental and quasi-experimental research. These types of studies try to establish a causal relationship. With regards to case study research, however, internal validity only applies to explanatory or causal research questions. Ensuring internal validity applies to this study because the research questions are explanatory in nature. The research questions infer that the changes that occur in the Ontario colleges are a result of the legislative changes. According to Yin (2009), internal validity is of particular importance whenever any inferences are made in the thesis. The data analysis process needs to seek convergent evidence and to address rival explanations. The data analysis process should use multiple sources of evidence, a case study database of evidence, and chains of evidence in reaching conclusions.

External validity is a research design concept that comments on the extent that the findings of a study could be generalized. External validity is a known issue in the case study approach. However, authors have raised questions of epistemology. The epistemological issue is what the relationship between a specific case and the general case (Tsoukas, 2009). External
validity of cases study research is usually called into question because they are compared to statistical studies that are dependent on samples and populations. In case study research, the purpose is less of making statistical generalizations as opposed to making analytic generalizations.

Yin (2009) defines two types of generalization: statistical and analytical. The case study methodology is not used to create a statistical generalizable result. That is, findings from this study cannot be applied to every institution within the Ontario college system, nor can the findings be generalized into other systems that exist in other institutional contexts.

The proper development of the case study is more geared towards analytic generalizations. In multiple-case case studies, such as this thesis design, each case selection can be viewed as an experiment to test previously developed theory to compare each case’s findings. If two or more cases can be explained by a theory then it can indicate replication of that theory or, in other words, an analytic generalization. Much of a case study’s credibility relies on the ability of the researcher to link case study findings to existing literature.

The acknowledgement that the case study methodology is not to produce statistically generalizable results, but to produce analytical generalizations, profoundly impacts the case study design. This allows for a small-N study, where N should not be viewed as samples from a population, but as separate experiments testing a theory (Tsoukas, 2009). In this type of research design, case selection becomes purposeful where cases can be chosen to illustrate contrasting cases. Cases are not meant to be statistical sampling units of a population (Eisenhardt, 1989).

3.2.4.2 Types of data collected.

Case studies grounded in institutional theory have used various types of data sources. The sources have ranged from archival materials, interviews, surveys or questionnaires, and/or direct
observation. The case study approach gives the researcher some flexibility in methods. Archer (1982) stated that to fully understand a change, the changing variable needs to be examined at least two different times. In this research project, the time at which the triggering event (i.e., the new provisions in the legislation) occurred was before the study was designed. The study looks at a time period of 2002-2012, but collection of data for the study started only in June 2011. To partially compensate for this limitation, archival documentation was used to develop the historical context of the Ontario college system and the individual colleges. Interview data were collected after the review of the archival documentation. Interview data were used to gain clearer insights into institutional decision-making processes at the colleges, explore the themes found in the archival data, and examine the participants’ understandings of the changes happening at the institutions.

3.2.4.2.1 Archival data.

As mentioned earlier, an organization is mired in context, including its organizational field and historical development, that provides a basis for its character. Scott (1987) emphasized the impossibility of understanding an institution without understanding its history. The major purpose of the archival data was to form the historical context for the system and individual institutions in the study.

The first step of dealing with archival data was to identify what archival data were available and to determine which sources of archival data were pertinent to this study, guided by the research questions. At the system-level, data were collected from Ministry and Council of Regents’ documents and reports dating back to 1967, publications from ACAATO/Colleges Ontario, reports from PEQAB and NSERC, and a variety of documents created by the colleges. The majority of the documentation was obtained online through each organization’s website,
online databases, or from the City of Toronto library microfiche collections. At the individual colleges, data were collected from board minutes and a variety of reporting documents created by the colleges. Archival data were digitally copied (i.e. scanned) and entered into the case study database. The database was organized using Microsoft Excel. From each source, the filename, source date, relevant extracted information was entered into the database. Each entry was coded with (an) appropriate tag(s) that identified the major theme(s) associated with the entry. The database was sortable by major theme and date so that a timeline analysis could later be done on the archival data.

3.2.4.2.2 Interview data.

The interview part of the study was completed after the archival documentation was collected and analyzed. The interviews were used in this study to gain multiple perspectives on how the individual colleges and the system were changing in response to the legislation. The intention of the interview participant selection was to speak to people who had special experience or held specific positions within the college system who could provide the perspectives that could not be obtained from archival documentation. As a result, the participants were all well-educated and in positions of power in the college system during the relevant time period.

The original interview guide was developed based on the literature review, research questions, and findings in the archival documentation. The interview guide became the basis for semi-structured interviews. The interview guide was refined after one pilot interview.

The interview protocol was based on a paper by Aberbach and Rockman (2002) entitled Conducting and Coding Elite Interviews. Aberbach and Rockman (2002) suggested that when interviewing elite participants, people in positions of knowledge or power, that the interviewer
should focus on the purpose of the interview and allow the participants to structure their own answers by asking open-ended questions. The interview questions were sent to the participants beforehand. The interviews were digitally recorded, with the consent of the participants, so that the interview could be more conversational in nature. Interviews were scheduled in a location of the participant’s choosing.

The interviews were transcribed and sent to the participants to verify the accuracy of the transcripts or to make any deletions/additions. No participants made material changes to the transcriptions. The resultant interview scripts were coherent and answers were well-formulated. Because of the coherence of the interviews, I was able to use quotes that clearly represented the participants’ understanding of the system.

Interview quotes and themes were extracted into the Microsoft Excel case study database dated to the time period the information was related to and tagged with the overarching themes of the study.

3.2.5 Methodology and data collection methods.

The study was completed in phases. The first phase was the case selection. The second phase was a document analysis of the system-level changes, followed by six interviews of knowledgeable system actors. The third phase was the examination of individual case studies conducted at three Ontario colleges which consisted of a document analysis at each college followed by six to seven interviews of the college’s senior leadership.

3.2.5.1 Phase 1: Case selection.

The case selection was purposeful. The purpose of the case selection was to choose three colleges that have used the changes in legislation to differing extents. The organizational
population from which the samples can be drawn was the 24 Ontario colleges defined by the Ontario college charter. The Ontario college sector is a unique sector of higher education containing a unique set of institutions. In comparison to other jurisdictions, the Ontario colleges differ in a number of respects, including their culture and history, governance structures, funding mechanisms, and the provincial government’s objectives for the sector. Within the system there is also great diversity including French colleges, northern and rural colleges; colleges differing in size, demographics and geography. Each of the colleges has a unique background that affects decision-making and internal organization.

Samples from the population could be done randomly or with intent. Pettigrew (1990) determined for his study, on organizational change in industrial firms, that it made the most sense to choose samples from extreme situations where the cases are likely to support the emergent theory. The advantage of selective case selection is that it allows the researcher to extract findings based on the different types of cases that are chosen.

The amount of data to be collected and processed in an organizational change process can be monumental. The researcher needs to balance the number of cases studied, what aspects of organizational change will be considered, and the depth of the study.

The legislation opened opportunities for the colleges to differentiate from each other with the ability to offer four-year degrees in applied studies and engage in applied research. By January 2011, when the case selection was complete, there were trends emerging in terms of the colleges engaging in the two activities, creating a spectrum of colleges ranging from little to no differentiation to a lot of differentiation. The case selection attempted to capture three colleges at different points along the spectrum of differentiation.
Rosenkrantz (2013) selected sites using a typology developed by Madder (2005) as a base. Madder’s (2005) typology described the stages of innovation for colleges and institutes as novice, established or fully integrated. Rosenkrantz did a web content analysis to determine the state of applied research development at each college. In this study, the colleges in the system were categorized with respect to applied research development and the extent of degree activity. The first step in selecting cases was to determine whether or not the college exhibited research intention. Table 3.1 shows how I established whether colleges exhibited research intention. The criteria used for the study to this end, as of January 2011, were:

1) Did the college have a website dedicated to applied research?,

2) Did the college have membership in the CONII9 network of colleges?, and

3) Was applied research mentioned as an objective in the most current strategic plan of the college?

If a college met all three criteria, then it would be considered to have research intention. All other colleges would be assumed to not have full research intention.

Table 3.1
Research Intention of the Ontario Colleges

<table>
<thead>
<tr>
<th>College</th>
<th>Research Office Website</th>
<th>CONII membership</th>
<th>Institutional Strategic Objective</th>
<th>Number of Criteria Met</th>
<th>Research Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algonquin College</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Boreal College</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Cambrian College</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>Canadore College</td>
<td>No/Yes</td>
<td>No/Yes</td>
<td>No</td>
<td>0/3</td>
<td>No/Yes</td>
</tr>
</tbody>
</table>

9 CONII - Colleges Ontario Network for Industry Innovation – was a consortium of colleges that worked together to provide innovation, applied research, and commercialization services to small-and-medium-sized businesses. The consortium was expanded to 20 colleges in
From Table 3.1, 14 colleges were considered to have research intention for the purposes of this study. The second step in selecting the cases for this study was to consider the number of
degree programs running at each college, as of January 2011. Based on the data depicted in Table 3.2, there was a significant gap between colleges running ten or more degrees and the rest of the system, where the next prolific degree-offering institution offered only four degree programs.

Based on the number of degree programs running and the determination of research intention (determined in Table 3.1), the Ontario colleges were categorized into three categories.

- Category 1: colleges that exhibited strong indication that they wanted to differentiate. These colleges were characterized by having ten or more degree programs, and evidence of research intention.
- Category 2: colleges that showed some usage of the legislation to differentiate. These colleges had a limited number of degree offerings, but evidence of research intention.
- Category 3: colleges that showed limited usage of the new activities provided by in the legislation to differentiate. These colleges offered no degree programs and had little research intention.

**Table 3.2**

<table>
<thead>
<tr>
<th>College</th>
<th>Number of Degrees</th>
<th>Research Intention(^\text{10})</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algonquin College</td>
<td>2</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Boreal College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Cambrian College</td>
<td>0</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Canadore College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^{10}\) Results from Table 3.1
<table>
<thead>
<tr>
<th>College</th>
<th>Value</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centennial College</td>
<td>2</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Conestoga ITAL</td>
<td>10</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Confederation College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Durham College</td>
<td>0</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Fanshawe College</td>
<td>3</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Fleming College</td>
<td>0</td>
<td>Yes</td>
<td>3</td>
</tr>
<tr>
<td>George Brown College</td>
<td>4</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Georgian College</td>
<td>3</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Humber ITAL</td>
<td>16</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>La Cite Collegiale</td>
<td>1</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>Lambton College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Loyalist College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Mohawk College</td>
<td>0</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Niagara College</td>
<td>2</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Northern College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>Sault College</td>
<td>0</td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Seneca College</td>
<td>11</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>Sheridan ITAL</td>
<td>10</td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>St Clair College</td>
<td>0</td>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>St Lawrence College</td>
<td>1</td>
<td>No</td>
<td>3</td>
</tr>
</tbody>
</table>

For the purposes of the case selection, I excluded the two French language colleges because of my lack of fluent French language skills. Northern College, Sault College, and
Confederation College were also excluded for reasons of geographic accessibility. Humber College was also excluded because it was my home institution and I wanted to decrease the possibility of bias in this study. In September of 2011, I initially contacted one college from each category to participate in this study. From category one, Seneca College agreed to participate in the study. From category two, Niagara College agreed to participate in the study. However, from category three, I contacted four colleges that indicated that they could not commit the resources to a study before Lambton College agreed. St. Lawrence College had also agreed to participate in the study.

3.2.5.2 Phase 2: System study.

The purpose of the second phase was to do a system-level analysis to better understand the context of the system in which the institutions under study were located. In this first round of data collection, I wanted to obtain a better understanding of the relationships between the colleges and the government or any other pertinent external stakeholder with regards to the research questions.

Prior to any data collection, I identified three major sources of change coming directly from the legislation: the new ability to offer degree programs in applied studies subject to government approval, the expansion of roles to include applied research, and greater procedural autonomy along with a shift of accountability to the college system. In this phase of the study, I wanted to verify that the themes I identified from the statutes were significant and identify any new emerging themes. The set of themes from Phase 2 informed the direction of the investigation for the next phase, the individual case studies.

I commenced data collection in June 2011. As the 2002-2012 examination period of my study was approaching the end, I completed a review of the publicly-available documents from
1996 to 2011 published by the provincial and federal governments and their agencies, and the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO)/Colleges Ontario\textsuperscript{11}.

Ethics review approval was obtained through the University of Toronto in September, 2011. The document analysis informed the interviewing portion of the system analysis. The interview questionnaire was crafted to explore the themes identified during the document analysis. I completed one pilot interview and analyzed the content to refine the interview questionnaire.

Interview candidates were selected based on their positions in the system that either helped fill in missing information or confirm what I had learned in the document analysis. I interviewed two long-standing college presidents, one representative from the Ontario Ministry of Training, Colleges, and Universities, two former employees of the Ontario Council of Regents, and the former chair of Colleges Ontario; in total six interviews. One interview request was not accepted. The base interview questionnaire can be found in Appendix H. Interviews of the system-level participants were completed by the end of October 2011.

In a study of this type, an explanatory case study, the data collection and data analysis phases of the study need to overlap in order for the data collection to be more flexible. This allowed me to adjust the data collection instruments as the analysis evolved with new emergent themes. Ideally, I would have been able to switch between data collection and data analysis continuously throughout the study until its conclusion. However, due to some practical considerations in completing the research, a fully-iterative data collection and analysis was

\textsuperscript{11} ACAATO was rebranded as Colleges Ontario in 2002.
almost impossible to achieve. Administratively, it would have been difficult to gain permission from institutions to re-enter the studied institutions over an extended period of time.

I attempted to link my data collection and analysis as much as possible through keeping field notes about newly-identified emerging themes, as my thinking about the study matured. I made adjustments to my data collection instruments as the research evolved, either by identifying new areas to be investigated or finding new interview participants that were able to add to the findings of the study.

All of the interviews were transcribed by a third-party service. The third-party service was bound by a confidentiality agreement. The transcription was sent to each participant to verify its accuracy and to allow the participant to edit content entered into the research study. Participants did not make any significant changes to the transcripts.

3.2.5.3 Phase 3: The three case studies.

In the third phase of the data collection, I focused on collecting data at three individual institutions: Seneca College, Niagara College and Lambton College. At each college, I collected and sorted archival data for three days. At each college, I aimed to collect the following documents:

- organizational charts from 2000 and 2010;
- course calendars from 2000 and 2010;
- PEQAB submissions;
- strategic plans, business plans and annual reports, including financial documentation;
- evidence of research activity;
- marketing materials; and
At each of the participating colleges, I reviewed relevant publicly-available historical and archival documents. The review included the examination of financial statements, budgets, websites, strategic plans, program mix, PEQAB submissions and board meetings related to the particular college over the decade. All pertinent events discovered in the document analysis, which included the addition and deletion of programs and services offered by the college, were categorized and organized chronologically in a case study database (i.e., an excel file). The case study database from each college was analyzed and emerging trends or themes were identified. The findings in the document analysis were used to solidify the interview questions at the institutions.

The collection and analysis of archival documents informed the interviewing process. The interviews with six to seven selected participants at each college were arranged and conducted following my already established interview protocol. The base interview questionnaire used at the colleges can be found in Appendix I.

While in the field performing the data collection at the sites, I maintained a log of my thoughts before and after interviews. The purpose of capturing those thoughts was an attempt to start drawing connections between times, events and people and to brainstorm methods for filling any holes in my understandings. This field log was an element suggested by Glaser and Strauss (1967) and Eisenhardt (1989).

3.2.5.3.1 Seneca College.

I visited Seneca College on November 23rd-25th, 2011 to collect and analyze documents. After the document collection, I invited seven people as interviewees to participate in the study. One potential participant declined to participate. On December 12th, and December 22nd-23rd,
2011, I interviewed six senior administrators at the College. The interviews ranged in length from 45 minutes to 125 minutes.

3.2.5.3.2 Niagara College.

I visited Niagara College on December 14th to 16th, 2011 to collect documents. I invited seven people to participate in the study. All interviews took place between December 19th-21st, 2011. I interviewed seven senior administrators at the College. The interviews ranged in length from 50 minutes to 70 minutes.

3.2.5.3.3 Lambton College.

I visited Lambton on April 30th to May 3rd, 2012 to collect documents. I invited seven people to participate in the study. All interviews took place between May 7th-9th, 2012. I interviewed seven senior administrators at the College. The interviews ranged in length from 40 minutes to 95 minutes.

3.2.6 Analyzing the data.

The data analysis process is considered the most difficult step in the case study methodology. Pettigrew (1990, p. 281) likened this step as a possible “death by data asphyxiation”. In open-ended research problems, the researcher has little indication of when to stop collecting data. The data set becomes so immense that it is difficult to process all of it.

In order to organize the archival data and interview data, Yin (2009) suggested creating a case study database. This case study database was built in Microsoft Excel. The case study database allowed me to reorganize and sort my relevant data by date, theme, college, etc. It also provided links to the original source of information so that I could explore any findings in the database further. The database provided ease to sort through the data that I had.
The first step of the data analysis process is often a within-case analysis. This within-case analysis is an in-depth description of each case (Gersick, 1988; Pettigrew, 1990). The purpose of this step of the analysis is to help the researcher deal with the enormous volumes of data. According to Eisenhardt (1989), the researcher needs to become familiar with each stand-alone case in order to see patterns that emerge from the individual cases, before the researcher tries to generalize patterns across cases. The next step of the data analysis process is to employ a cross-case analysis. The purpose of the cross-case analysis is to provide a structured approach to looking at the data. In this study, I organized the cross-case analysis to describe changes in the institutional environment for each college with respect to the areas that the legislation could have changed the colleges (i.e., accountability structures, degree offering, and applied research). After this step, I gained a better understanding of how each of the colleges changed with respect to accountability structures, then to degree offering, and then to applied research.

The final step in the data analysis was to compare the findings of the study to theory developed for this study and also to rival explanations. The findings lead to identifying a set of implications and areas for future research. Based on the structure that I described earlier in the chapter, I had three smaller case studies per institution to test or develop theory.

The final point to note about the process is the amount of iteration that occurred throughout the process: rewriting, reorganizing and re-theorizing drafts of each chapter. The data analysis process cannot be started without a well-defined plan. However, as I wrote the potential methodology section, there was uncertainty about what the final data analysis process would be until it was complete. As themes emerged in the data analysis, the literature review needed to be reviewed to maintain succinctness and relevancy. As more areas were explored in the literature review, the data analysis might have picked up new threads of analysis.
3.2.7 Summary.

The purpose of this study was to explore institutional change at three Ontario colleges in the decade following impactful legislative changes. Institutional change was theoretically framed using three components of the institutional environment: institutional logics, institutional actors, and governance. Charting changes in those institutional components would indicate overall institutional change. A multi-level, multiple-case study was formulated to answer the research questions. The study was divided into three phases: case selection, system-level analysis of the Ontario college system, and the three individual college cases (Lambton College, Niagara College and Seneca College). These colleges were purposefully chosen because they seemed to use the changes in legislation to differing extents.

The case study used archival data and interviews as data sources. All data were entered into a sortable case study database. Findings and theory-building around each of the institutional components came from a number of triangulation techniques inherent in the case study methodology.

3.3 Boundaries of the Thesis

A researcher using a case study methodology needs to balance the scope of the study with the amount of detail each case study will entail. In this thesis, there were necessary decisions made about which dimensions of the organization would be captured and which ones would not. As stated previously in this methodology chapter, this thesis explored the changes in the institutional environment with respect to the statutes surrounding degree granting, applied research and changes in accountability structures. This thesis examined a period between 2002 and 2012. However, during this time period, there are other possible triggering events of
institutional change that may have occurred and also other indirect changes to the institutional environment as a result of the legislative changes that may not have been captured by this thesis.

In this section I will briefly outline a number of major changes in the Ontario college sector that were not captured by this thesis. Firstly, this thesis did not examine issues of compensation of the administration or faculty ranks of the college system. Prior to the new college charter, compensation was established by the compensation arm of the Council of Regents. Afterwards, college boards received the ability to determine administrative compensation themselves. Since the legislative changes, there has been a significant increase in administrative compensation in comparison to faculty compensation. Secondly, another key constituting piece of legislation changed for the college system in 2008. The Ontario College Collective Bargaining Act, 2008 changed the way that colleges and the unions bargained. An unpublished Masters’ thesis by Shiyamala Devan (2011) outlined the consequent changes in power relationships between the faculty unions and the colleges. The 2008 legislation shifted the responsibility for contract bargaining away from the Ministry to Colleges Ontario. The legislation also gave the colleges several new tools to affect the bargaining process.

Finally, the technological environment has also evolved over the time period of the study. Colleges have had to invest significantly in their computer systems to remain up-to-date. Over the period of the study, the technological paradigm has changed such that there are expectations that processes should become more automated, information and reporting should be available on-demand, and users should be able to access and independently manipulate their own profiles. The changes in technology have had some notable impact in this study. One, the technology is better able to support the demands of institutional research in the colleges. Two, colleges needed to spend significant amounts of money to upgrade their technologies. And three, the learning and
teaching paradigms in the classroom have been forced to evolve around the consideration of educational technology.

3.4 Theoretical Limitations

The case study methodology is very good at producing in-depth explanations of social phenomena, especially when it is difficult to distinguish between the phenomena and the context. Following the same logic, it is difficult to establish causal relationships for social phenomena when it is mired in context. The study cannot be used to generalize to other systems or colleges within the Ontario college system. Every system and institution within the Ontario college system is shrouded in its own historical and environmental context, making extrapolations difficult. The selection of candidate colleges identified three colleges on different trajectories. In spite of being governed by the same legislation, each college in the system is significantly different with respect to the types of programs it offers, the demographics of its student body, and the focus of its extracurricular activities.

Institutional change is usually a result of an exogenous triggering event. Barley and Tolbert (1997) suggested that ideally the researcher should identify a triggering event before it happens and begin a study of the context to establish a baseline. In circumstances where a researcher cannot study an institution from before a triggering event, some authors have suggested using historical and archival data to develop a timeline of changes and possibly determining the thinking behind changes (Barley & Tolbert, 1997).

In this study, I have chosen a time period between 2002 and 2012. Based on my assumption that the triggering event was a change in legislation, in 2000 and 2002, the beginning of the time period of the study is 2002. The study is a limited by the snapshot nature of the research study. It is not possible to make a comparison with the amount or type of change during
the previous ten-year period. As a result, we are unable to identify whether this change is a normal amount or type of change within a given ten-year time period. However, it would be logical that there were distinctive types of institutional change because the legislative changes were the first significant change in the Ontario college system’s ruling constitution since the beginning of the system.

This case study focuses on the phenomenon of institutional change. For large institutions with hundreds of internal and external actors, the institutional environment is infinitely complex. From the point of view of the researcher, there needs to be conscious decisions that limit the scope of the study. My choice of methodology has limited me to observe factors that can be gathered in documentation and later explored using interviews. The documentation for the most part is limited to those in the public domain. As a result, I will not be privy to the in-process thought behind institutional change. Any interviews that I had with system or college actors were done in 2011 well after the triggering event. The responses from the interview participants will be restricted by their memory and possibly reconstructed by the events and experiences that occurred after the triggering event. I attempted to compensate for the reconstruction of their realities by triangulating the interview data with archival data.

The observations and data analysis were completed by myself. Although I tried to be as objective as possible as I reviewed the data in this project, I accept that the objectivity is tainted by my personal constructs. I tried to reduce the effect of my personal biases by having the sections on each college presented in chapter 5 reviewed for accuracy by the one or two interview participants from each respective college. There were no material changes from the Niagara College and Lambton College case studies. The reviewer from Seneca College
commented on some wording issues and timing of decisions. Those changes were incorporated into the thesis where the evidence supported them.

3.5 Ethical Considerations

I applied for and received Research Ethics Board approval from University of Toronto on September 21, 2011.

Interview participants in the study at the system-level were informed, through a written and verbal explanation of the letter of informed consent, that there would be an attempt at maintaining anonymity, but because of their unique positions within the college system their anonymity could not be guaranteed. Reasonable steps were taken to preserve confidentiality and to ensure that the participants were interviewed in a safe and secure environment.

For each of the colleges, I obtained administrative consent from the president or acting president of each institution. The administrative consent allowed me to identify the college by its name; for example, as Seneca College, Niagara College, or Lambton College. I then applied for and received Research Ethics approval from each of the institutions in the study.

At the institutions, I made no use of private or confidential documents or information. In terms of confidentiality and privacy of the participants of this study, through the informed consent process, participants understood that they would be identified as ‘<Niagara, Seneca, Lambton> employee <A, B, C, etc.>’. In the informed consent letter, participants understood that there was the possibility to lose anonymity, due to the limited number of interviewees per college. Readers of this thesis may only speculate as to the contributors of data.

Through a written and verbally-explained letter of informed consent, the participants were asked if the interviews could be digitally recorded and transcribed. Within two weeks of their interview, all participants had a chance to review the interview transcript to make any
additions or deletions they saw fit before it was entered into the research project. No interview transcripts were substantially edited. One transcript was edited for grammar. All participants were given the freedom to be withdrawn from the study or to refuse to answer questions at any time. These options were not exercised by any participants in the study.

3.6 Organization of Findings

This chapter will be followed by a chapter analyzing the changes in the organizational field or in the college system as a whole. It provides a descriptive analysis of the system documenting changes and important events and actions. The descriptive analysis is followed by framing the findings using the theoretical framework of institutional change.

The fifth chapter will be the three case studies of Seneca College, Niagara College and Lambton College. These case studies will also be descriptive analyses, with a focus on the institutional environments with respect to the main areas of change identified in the system chapter, namely degree granting, applied research and changes in program and college accountability structures. The case descriptions will be followed by a comparison of the actions taken by each college with respect to each of the newly introduced activities defined by the legislation. The comparison will also examine the commonalities and differences in the material-resource and institutional environments for each of the institutions per activity. The findings will be presented as the changes in the material-resource environment, institutional logics, institutional actors and governance. The final chapter of the thesis will be the conclusion of thesis summarizing the major findings and outlining a potential plan for further research.

3.7 Chapter Summary

The purpose of this chapter was to provide the reader with a clearer understanding of what research questions this thesis was trying to answer, how the thesis was designed to explore
those questions, how the data gathered in this thesis were analyzed, and what practical and theoretical limitations were considered in this study.

The methodological approach used for this study was an explanatory case study using triangulation between archival and interview data sources. The study used an institutional theory framework for analyzing changes at three individual Ontario colleges over a period of 2002 to 2012 after two major changes in legislation.
Chapter 4: The Ontario College System: A Field-Level Perspective

“If we look back into history, the period between 2000 and 2004, will be seen as the most dynamic period of formal change for the colleges since the legislation of 1965.” - Robert Gordon (President of Humber College 1981-2006).

The three main purposes of this chapter are to outline a relevant history of the Ontario college system, outline the newfound capabilities of the colleges due to the Post-secondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002, and to establish how the colleges’ environment changed with respect to the conceptual framework developed in chapter two. This chapter also serves to outline the data collected on the Ontario college system and to analyze the changes in the system with respect to the research questions of this study. These data provide the basis for a field-level analysis and provide the context for changes at the individual institutions explored in chapter five.

4.2 Leading into the Time Period

The Ontario college system was established in 1965. From that time until now, the college system established an identity which guided its decisions on which constituents to serve and how to best serve them. Although this identity provided guidance on how to behave, it also provided a set of constraints in coming to those decisions. The organization of the internal actors, the interaction with external actors in the organizational field, and the enforced governance structures produced embedded characteristics of the college system.

This thesis examined the changes in the system and institutions during the 2002-2012 time period. In order to appreciate changes at the individual institutions during the time period, it is necessary to first have a historical understanding of the state of the system and institutions prior to 2002.
4.2.1 Same, but different.

The Ontario colleges were established in 1965 under the Ontario Colleges of Applied Arts and Technology Act, 1965. Before 1965, the post-secondary environment looked very different from today’s environment. The main post-secondary institutions were the universities. Training for skills, apprenticeship, and professions were fragmented into smaller localized institutions. Ontario had started the process of developing a number of institutes of technology and vocational centers. The problem, at the time, was that there were too few institutions and the institutions did not offer local comprehensive programming required for provincial economic development (Government of Ontario, 1967). The existing system was a fragmented collection of standalone schools with little to no oversight. The 1965 Act initiated the development of the college system. The new public college sector was in its infancy.

By the year 2000, thirty-five years later, each of the Ontario colleges has had time to evolve and develop its own identity. The college system, although created as a homogeneous system, was designed with leeway as to how the colleges could respond to the local needs and requirements (Government of Ontario, 1967). In the founding Basic Documents, there was recognition that there would be differences between colleges.

Firstly, prior to the development of the college system, Ontario had an existing system of institutes of technology and trades. At the time, the “Council of Regents had to integrate existing institutions and efforts, using the present buildings, staff, and programs as nuclei for the development of the new colleges” (Government of Ontario, 1967, p. 16). For example, Humber College, located in the Greater Toronto Area, was created from a skilled trades school. Its identity as a trade school at its establishment still runs through Humber. This is quite different than another Greater Toronto Area (GTA) college, Seneca College, which has a very small presence in apprenticeship programming.
Being an essential part of the vocational educational system, I'm not sure that we (Seneca) can claim to be unique in the system from our other colleges. We do it differently. Seneca, unlike a lot of other colleges, did not grow out of a trade school or a trade's college. Our apprentices don't do the trades. – [Seneca employee F]

Secondly, taking into account the degree of institutional autonomy which each college was given to service its community, the system of colleges was already highly differentiated. Each college has been no different than a typical organization in that it adapted to its local operating environment. One interview participant said, “There are lots of other ways in which you could say colleges are differentiated, not because the government declared they should be differentiated, but because they’ve chosen to specialize in certain kinds of activities”. – [System participant A]

The environmental inputs per college vary as industries vary across Ontario: Northern Ontario has a large mining industry; Southwestern Ontario has manufacturing; Sarnia, near the Detroit border, has petroleum processing facilities; Ottawa is the home to the Federal government; and Kitchener-Waterloo area is known for a thriving technology sector. Meanwhile, the Greater Toronto Area has a highly-diversified industry sector base including large hospitality, healthcare, financial and technology sectors.

In terms of programming, all colleges offer a range of two- and three-year diplomas. However, colleges differ with respect to the extent of apprenticeship programs, degree offerings, graduate certificates, one-year board certificates, university-college partnered programming, and international offerings. As noted by a government official:

So, you know once you start looking at college-driven differentiation… the list can be as long as your arm. Some colleges chose to offer a lot of degrees, some not. Some colleges specialize in certain program areas; some don’t enter those
programs at all. Some are doing a partnership with a university and in the fair amount of depth, some are not. You know you can go on... – [System participant A]

Thirdly, different parts of Ontario face different demographic pressures due to differences in terms of aging population and immigrant settlement. Many Canadian immigrants land and settle in the Greater Toronto Area, serviced by five large GTA colleges. Colleges in many smaller communities have been impacted by aging demographics and the departure of the young adult population to the major urban centers. Those smaller colleges have focused on finding more specialized programming, and by extension, for students sometimes well outside of their traditional catchment area.

In addition to the informal differentiation mentioned above, the government has formally supported some differences through the college funding formula. For example, there are two French language colleges with specialized funding, and several colleges that qualify for the ‘Small, Northern and Rural’ (SNR) college grant. The SNR grant calculates the population density of the catchment area and provides additional funding as an acknowledgement that smaller rural colleges do not have the economies of scale associated with their larger urban peers.

As a result of 35 years of informal and formal differentiation between colleges, each college has developed different characteristics in terms of the distribution of program types it offers, student demographics, industries of focus, and some aspects of organizational structure.

4.2.2 Internal diversification of colleges.

The previous section discussed the differences between colleges. This section attempts to look within each college. As an activity is added to the college, what is the extent of the changes
within the college; what new resources and administrative structures are necessary to support the addition of any new functions within a college.

Over the course of the colleges’ histories, they have become increasingly complex institutions.

In the early days, they [the colleges] were pretty simple. Two and three-year programs, end of story… However, as the college grew the academic programming started to get more complicated. And each one needed to be dealt with separately without creating problems for yourself. In addition, the colleges tended to never give up anything. – [System participant B]

One long-standing president of a college commented that:

part of the reason the college system has been so successful, notwithstanding the fact the original act gave the minister all the power, is that the minister didn’t exercise it and he let them – the institutions – connect with their local community and let them evolve fairly freely. – [System participant C]

Academically, all colleges started with two and three-year diplomas. A diploma program has a specific structure that requires a certain credentialed and/or experienced faculty. The administrative structure of all diploma programs is relatively similar and the funding of all diploma programs follow the same principles from the government. Student recruitment for diploma programs traditionally focused on the 18-to-24-year-old demographic of recent high school graduates.

Let’s examine how a new program offering could add complexity and structure to a college. Suppose a college wants to add an apprenticeship program in the trades for the first time, there are a number challenges that the college must address. Apprenticeship programs are inherently different than diploma programming, and the distinctive operation of apprenticeship programming makes it extremely difficult to integrate the two types of programming.
First, the source of students and the process students go through to complete a program are very different. Apprentices are usually first employed by a company or union. The company or union needs to sponsor a potential apprentice through the regional apprenticeship training consultant from the Ministry of Labour, an entirely different Ministry than the one responsible for traditional college funding. Typically, the apprentice will then be released from work for an eight-week training cycle at the school. After the eight weeks, the employer will take the student back and expose them to certain learning outcomes over the next set time period. That would constitute one of the three cycles needed for the apprentice to complete their apprenticeship training. The learning occurring at each of the three cycles is standardized by the Ministry of Labour, so students can possibly complete cycles at different trades schools.

Second, the relationships needed to run a trades school do not overlap with those needed for traditional diploma programming. To run a school in the trades, there needs to be direct contact with local unions and employers of tradespeople. The interactions for students and the college occur with the Ministry of Labour and not the Ministry of Training, Colleges and Universities. The faculty for the trades and diplomas are, for the most part, not transferable between disciplines, meaning that the college would need to hire from an entirely different employee pool to find apprenticeship faculty. The skills required by the administrative structure of an apprenticeship program are also different than those needed for diploma programming.

Thirdly, a facility for trades education needs to be dedicated to the trades because of the specialized equipment needs and the incompatible scheduling system required by apprenticeship programming. To further the complexity, common facilities, such as student services or registration systems within the college either need to be flexible enough to support both diploma

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12 In early 2016, the name of the Ministry responsible for the Ontario College system was changed from the Ministry of Training, Colleges and Universities to the Ministry of Advanced Education and Skills Development.
and apprenticeship of students, or they would need separate systems. In a way, offering an apprenticeship is like developing a college within a college because of the lack of overlap.

Serving as another example, there is a similar amount of additional complexity to offer continuing education programming as there is offering apprenticeship programming. Continuing education usually has shorter length certificates so that students can finish a program within a year or two on a part-time basis. The student body is recruited from the general public or working professionals, making marketing efforts a little more challenging. Due to union and faculty issues, continuing education needs to find teachers that are not full-time faculty. Therefore, the continuing education organization needs to hire a brand-new set of faculty, few of whom are full-time. The course delivery traditionally occurs on weeknights and weekends. The delivery times also mean that at least a portion of the administrative structure needs to be different because they need to be at the college at different hours. Usually, colleges have a separate department for continuing education. If a college wanted to have a strong continuing education programming, it too would need a separate organizational structure within the college.

As with offering academic programs at different levels and structures, academic programming becomes even more complex when considering the specialized facilities required to offer certain programming; consider the facilities necessary to offer an aviation program versus a healthcare program or a culinary arts program. The facility needs of some academic programming require dedicated, specialized space.

Colleges also support a number of auxiliary services like residences, bookstores, food services, facilities, and information technology. Each one of these operations increases the internal complexity of the college. A former administrator of Humber College commented:

Don’t forget, while Humber offers a four-year program, we have to do it through [University of New Brunswick]. Then we had the University of Guelph-Humber.
So, the academic programming was starting to get much more complicated. And each one had to be dealt with separately without creating problems for yourself. In the meantime, we were still doing apprenticeship. We're still doing English as a second language, truck driving, you name it. We didn’t throw away anything -- the colleges tended to never give up anything. We just kept adding on things.

Beyond offering educational programming, a college increasingly has to maintain relationships – relationships with the government, other post-secondary institutions, industry, alumni, donors, and international institutions. As a college wants to put effort into maintaining any of those types of relationships, it needs to add specialized structure. It requires an administrative structure to support each functionality and as time passes, it becomes increasingly difficult to release that functionality.

Any new activity that the college wants to engage in, in turn, increases the complexity of running that college. Drawing from Weick’s model of organizing and theory of loosely coupled systems, each piece of functionality or organizational structure may have a loosely- or tightly-coupled relationship with other departments. From the point of view of actors within the college, they also need to deal with that complexity by maintaining relationships with more departments than previously. Sub-organizations within the college might experience a ripple-through effect. An academic department, for example, might respond to an increased environmental complexity, created by new internal structures of the college, by creating its own policies, processes and possibly positions.

**4.2.3 Description of system regulative functions.**

The purposes of this section are to describe the structure of governance for the college system, review some of the college operational accountability processes, and then outline some the issues that colleges had with those processes prior to 2002.
4.2.3.1 What is regulated?

Early in the life of the college system, the colleges existed under the scrutiny of the Council of Regents (CoR), an intermediary body between the responsible Ministry and the college system. The CoR and the Ministry established rigorous policies, directives, approval processes, and monitoring practices for the colleges (Hook, 2004).

The legislation in 1965 played a much different role in the college system than the 2002 legislation. The original legislation was written for a college system in its infancy that had no guidelines, history, or structure to guide its development. In the early 1970s, there were 22 colleges with a total of just under 40,000 full-time enrolled students (Government of Ontario, 1975). By 2000, the individual colleges had gained 35 years of experience and an annual enrollment of over 120,000 full-time students (ACAATO, 2001).

In the original formulation of the colleges, there was a great deal of oversight of the colleges. The Minister of the appropriate government ministry maintained the power to establish, name, maintain, conduct and govern colleges of applied arts and technology that offered programs of instruction in one or more fields of educational, technological, general and recreational education and training in day or evening courses and for full-time or part-time students. (Government of Ontario, 1967, p. 24)

In addition to the Minister’s power, the CoR was established as a result of the government's desire to develop a balance (between the boards of governors, the Ministry, and the colleges) that would “prevent rigidity in administration and would lead to dynamic planning and policy-making” (Government of Ontario, 1975, p.88). The CoR selected a local board of governors for each institution. The colleges’ presidents and boards formed an umbrella organization called the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO), which had input into the planning process at the provincial level. However, ACAATO mainly played an advocacy and secretariat role for the colleges in the system.
As three players (CoR, ACAATO, and the government) all had input into the college sector planning process, the decision-making power was decentralized, giving individual institutions some autonomy in achieving their missions (Dennison & Gallagher, 1986). This deliberate decentralization was intended to keep the colleges flexible. Decentralization “was implemented through the stipulation of lay boards of governors, members of which would be drawn from the surrounding community” (Government of Ontario, 1975, p.88).

In the original legislation and associated regulations, many of the accountability structures, especially regarding program development and quality assurance, were designed to end at the Ministry level. The college system at the time lacked the expertise and, quite possibly, the resources to make coherent decisions to create an overall system. Although the Minister gave final approval, the CoR was primarily responsible for making recommendations to the Minister concerning program approvals, establishment of new campuses, labour relations, and appointing board members for individual colleges (Dennison & Gallagher, 1986). The CoR, in effect, was a bureaucratic layer above the colleges that had a normalizing effect on the system.

**4.2.3.2 The evolving role of the CoR.**

The CoR was initially composed of fifteen Lieutenant Governor appointees. The principal function of the CoR was to "assist the Minister in the planning, establishment and co-ordination of programs of instruction and services" (Government of Ontario, 1975, p.88) for the colleges. In the early 1970s, the CoR was active in the areas of appointing members to the Boards of Governors, approving amendments to the colleges' educational master plans, approving new programs of instruction, and advising the Minister on college policy. In the 1980s, two major new roles had developed for the CoR, first for representing the boards in
collective bargaining and second for analyzing the multi-year budget forecast presented each March by the colleges (Government of Ontario, 1975).

The idea behind the establishment of the CoR was to assist the Minister in the “planning, establishment and co-ordination of programs of instruction and services for the colleges” (Government of Ontario, 1967, p. 22). However, looking at the set of responsibilities there was no a clear line between the CoR’s policy, advisory, and approval functions. For the most part, the CoR’s powers and jurisdiction were not stipulated in the governing legislation. The lack of official definition led to uncertainty as to which aspects of the college system were the direct responsibility of the government and the CoR and which aspects belonged within the jurisdictions of the individual institutions (Commission on Post Secondary Education in Canada, 1972).

The role of the CoR evolved based on the perceived needs of the system at the time. One respondent, who worked on and with the CoR throughout the 1980s, felt that much of the centralized planning of campuses and program approval “had dropped away in the 70s from the purview of the CoR. In the early 80s, there were some budgetary aspects that were considered but there was much more focus on board appointments and the human resource side of the college operations.” – [System participant D]

The first college academic strike in 1984 focused the role of the CoR to dealing with labour relations. In 1987, the CoR was still viewed as the chief policy and planning body for the college system and thusly, spearheaded the Vision 2000\textsuperscript{13} process with a purpose to develop a renewed mandate for the system.

\textsuperscript{13} Vision 2000 was a report released in 1990 that recommended how the colleges system needed to adapt to environmental changes to be ready for the year 2000.
Around the same period of time, the CoR ceased having employees of its own; the CoR staff became located within the Ministry. Although still considered an intermediary body between the colleges and the government, the line was becoming blurred.

It was a rather bipolar type of reporting relationship in a sense, I could write letters to the minister and answer them too. It was a perfect bureaucratic closed-circuit system. If the council wrote to the minister I would draft the letter for the Council. When it got to the Minister, it would be then funnelled down through the layers, from the deputy for me reply to…it was pythonesque but it did, to some degree, work. – [System participant D]

However, the colleges did not appreciate the CoR’s presence in both policy and operational spheres. In the 1980s, there began to be discontent within the college system towards the Council of Regents.

During the 80s the colleges were maturing, first generation presidents were largely disappearing, the founding spirit, some people would refer to as a sort of the Battle of Britain spirit, was giving way to more established institutions that were growing. Competition for funds was fierce, and the entity that was the-then Council of Regents wasn’t necessarily seen by many college presidents as value added, it was seen as a potentially another layer that interfered with their capacity to discharge their obligations to their board and to their institutions as they defined them. As the 80s, and also 1984, interesting choice of year, saw the first academic strike. – [System participant D]

The Council of Regents’ Vision 2000 (1990) report called for increased system planning, curriculum standardization, program quality assurance, general education, accessibility, accommodating the adult part-time learner, opportunities for advanced training, and also alluded to degree offering in the colleges. After the Vision 2000 report, the CoR started several new initiatives, namely curriculum standardization and recognizing prior learning. With respect to
degree offering, Vision 2000 highlighted that the lack of transfer mechanisms effectively made a diploma terminal. The dearth of transfer mechanisms limited student choice by making it difficult for students to attend a college program, and then get transfer credits to a university to complete a degree. The report identified systemic barriers to making credit transfer credits work in the Ontario postsecondary education system and it called for the creation of an institute without walls to grant degrees if no collaborative arrangements between the college sector and the university sector could be made. The report also recommended a unique college credential which “reflected the rigour, comprehensiveness, and occupational focus of an advanced training program – a degree or some other designation” (Ontario Council of Regents, 1990, p. 95).

Deriving from Vision 2000, the CoR mandated standardization of the curricula across the college system through the College Standards and Accreditation Council (CSAC). Institutions started feeling that the requirements coming from the Ministry and the Council were “becoming more complicated, reporting requirements were growing and program approvals were seen as unnecessarily time consuming” (Hook, 2004, p. 8).

In the late 1990s, much of the policy and planning functionality of CoR moved to the Ministry or to the colleges. In 1996, the curriculum standards function of CoR closed and the prior learning assessment initiative was taken over by the colleges. The CoR maintained three major roles: collective bargaining agent for the colleges, appointment approval for board members, and human resources functions like administrative compensation and benefits.

Around the same time, ACAATO, the association of the college presidents and chairs of each board of governors, had started to develop its own policy documents and to provide the orientation to new local board members. The then-chair of ACAATO said that the CoR no longer
had a clear mandate and the CoR responsibilities were infringing on the autonomy of the colleges. [System participant G]

4.2.3.3 Board composition.

From the interviews for this thesis, it became clear that the local board of governors’ appointment process has always been a point of contention for the colleges. The appointment process is a partly symbolic, but for the most part real, struggle between the college’s desire for autonomy and the government’s desire to maintain control.

The methodology for choosing the governing board membership for a particular college has changed over the years. The local board of governors’ appointment process had been centralized through the CoR since the inception of the college system. In the 1970s, a board of governors was comprised of 12 members, plus the president of the college as an ex-officio member\(^\text{14}\). In general, four of the members would be appointed by the local municipal governments of the region and eight by the CoR. For the eight CoR appointees, the particular college’s boards would submit three nominees per vacancy and each nominee would submit a simple one-page application. Each board needed to have one labour representative. The chief formal responsibilities of the board were the educational program, construction of the physical infrastructure, financial accounting, and the appointment of the president of the college (Government of Ontario, 1975).

Going into the late 1980s, the process for appointing board members changed to allow local boards to link a nominee’s qualifications with a board’s self-identified needs. Membership appointed by the municipal government ceased. In 1989, the CoR changed the number of

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\(^{14}\) Ex-officio means to hold a position as a result of another position held; in our case, the president of the college is a required representative on the board.
nominees per vacancy rules to an “n plus 2” rule. This meant that each college only needed to submit two applications more than the number of vacancies on the board. The colleges were able to rank the nominees in order of preference. However, the CoR was mandated to ensure balanced representation on each board. College boards had taken issue with the then-existing process. The colleges had always worried that appointments would be political, resulting in a defacto transfer of board control to the province.

The colleges, at some times, were not able to read the intentions of the CoR leadership. The colleges argued that, like any rational organization, each college board would try to get the best people for their board of governors and did not need an external body making final decisions on the composition of their boards. Furthermore, the process was potentially embarrassing for the college. Their job was to recruit potential members for their boards, but in the recruitment process, the college was forced to tell its recruits “by the way we don’t really have the power to appoint you” – [System participant B]. The reality for the colleges was that, for two open positions, they would have to speak to four highly-qualified people, and two of those would be chosen without consideration of the expertise needed by the local board.

It was sometimes the case that the objectives of the CoR did not align with a particular college. In 1991, the Ministry requested that the CoR increase diversity on the boards. The CoR recommended implementing a constituency-based appointment process which meant that the CoR would try to find representation from minority and marginalized constituencies like the aboriginal community, disabled persons, and women. This led to objections from the provincial opposition political parties and from the college system. The concern was that the board was essentially trading skill sets for diversity. The provincial opposition leader, at the time, argued
that people appointed from a particular constituency would tend to represent the interests of their constituency instead of those of the college, or industry (Government of Ontario, 1994).

4.2.3.4 Board power.

By the late 1990s, the board of governors at each of the colleges had matured considerably. Many of the board members were from the private sector and understood finances and decision-making processes well. However, board members would be surprised that decisions made by the board would then have to be vetted by the Ministry. More capable board members wondered what the purpose of the board was if they could not make final decisions. The colleges potentially lost higher-caliber board members because of that old structure. An ex-president recollected:

The boards of governors were frustrated. Don’t forget, you’ve got very good board members saying, "Oh, you want me to go on your board but do I understand we can't do this, we can't do that, we've got to go down to the government get their approval? Then why the hell do I want to be on your board?" – [System participant B]

4.2.3.5 Collective bargaining.

The structure of collective bargaining for colleges created a problem for the province. The Instructional Assignment Review Committee (IARC), headed by Michael Skolnik, summarized the structural issue succinctly.

A faculty member's employment contract is with the Board of Governors of his or her college; the Council of Regents is the bargaining agent and signs the collective agreement on behalf of management; the college administration administers the collective agreement and handles grievances; the Government, through the Ministry of Colleges and Universities, provides the staff for negotiations and is alleged by many to be calling the shots behind the scenes,
especially on items having financial implications; and interposed among these agents are the Committee of Presidents and various other advisory committees drawn from college administration. (Skolnik, Marcotte, & Sharples, 1985, p.94)

There was considerable fragmentation on the management side of the bargaining agreement, which included the provincial government, the Minister of Colleges and Universities, the various sections of the Ministry (including the Staff Relations Secretariat), the CoR, the Committee of Presidents of the CAATs, and the administrators of each of the colleges (Skolnik et al., 1985, p.98). Furthermore, IARC’s point of the Ministry calling the shots was reinforced by the fact that the CoR was composed of government appointees and, by the late 80s, did not have any independent employees.

Eighty percent of a college’s operating expenses are staff salaries and benefits and, as such, issues with salaries and benefits rank among the most contentious in the collective bargaining process. However, college presidents could have disassociated themselves from the consequences of the collective bargaining process and blame the government for any financial implications of the contract because the contract was not negotiated by them. The labour negotiation was effectively between province and unions. The IARC review also pointed out that the negotiating body, the CoR, negotiated terms and conditions of employment for the faculty bargaining unit, but played no part in administering the negotiated contract (Skolnik et al., 1985, p.117). An experienced college administrator talked about the conflict that the bargaining structure created for the province.

You get into a bargaining situation or a strike situation, and we could sit back in the college system and say, well, it’s the Council of Regents; that’s government, go talk to them. They’d be in a hard spot, because the politicians didn’t want anything to do with that. – [System participant C]
As such, the circuitous collective bargaining structure resulted in a lack of accountability for the colleges and placed the Council of Regents in a difficult position of being labelled negatively no matter the outcome.

4.2.3.6 Regulative issues overall from government perspective.

Part of the problem for the Ontario colleges was that they were classified as Not-for-Profit Crown corporations according to the Financial Administration Act, R.S.O. 1990. This meant that they existed as “non-profit, social or cultural operational agencies established for the direct provision of goods and services in order to implement approved government policy and programs” (ACAATO, 1999, p. 5). As a result, colleges could not look to new revenue streams from sources not prescribed in their operating directives, and the overall institutional direction came from the responsible Minister. The powers of a not-for-profit corporation are limited by its enabling legislation, and in the case of the colleges, this included the applicable binding directives issued by the responsible Ministry, the regulations in the MTCU Act, R.S.O 1990 as well as the Corporations Act, R.S.O 1990. In total, this meant that the colleges were not able to find revenue outside of their main business of educating students.

The colleges found that the centralized decision-making by the CoR and the Ministry exerted unnecessary control on the colleges. The sentiment was expressed by a long-time administrator of a mid-sized college:

If residences aren’t needed and if you have to fund them yourself, which we do, then nobody’s going to build them unless they are needed, so what do you need a rule for? If you can raise money, you mean, you shouldn’t? Or if you can’t raise it, you don’t need a rule that you can’t be raising it. – [System participant C]
According to the regulations to the MTCU Act\textsuperscript{15}, a local board of governors was not allowed to make any real estate transactions without the approval of the Minister. This provision proved troublesome. The process for financial transactions was not time-effective, possibly costing the colleges the ability to complete deals and also, it created enormous work for the Ministry. Some colleges simply broke the rules and completed real estate transactions in contravention to the law. One college bought a parcel of land outside of its traditional catchment for future expansion. The then-administrator commented:

[Buying land] wasn’t that simple, particularly if it wasn’t in your area, or you wanted the government to pay for it. But, because we didn’t disrupt anything, the ministry, it was kind of like don't ask, don't tell. But once our board had approved it and we bought it, there wasn’t a hell of a lot the government could do, because they can't force us, or the guy who sold it to us, to unravel the deal and give the money back. So, the question then is… are you [the colleges] doing it in such a way that it is annoying the government and embarrassing them, in which case they might have to do something. And the answer is no. – [System participant B]

Many of the colleges’ operating processes needed to be approved by the Ministry or the Minister. In the 1990s, with 25 colleges\textsuperscript{16} requiring approval for programs, real estate transactions, annual reports and budget documents, and a limited number of Ministry employees dedicated to the colleges, the process was at times slow. One former Ministry employee recalled an instance when a municipality approached one college to sell a strip of land along the roadway to be able to use it in the future.

…and there had to be an application to the ministry, somebody had to review it, they had to make a recommendation to the minister. You had to go upstairs and brief the minister; the minister had to ponder the situation and eventually sign yes or

\textsuperscript{15} R.R.O. 1990 Reg. 770 s.15
\textsuperscript{16} Including now closed Grand-Lacs
no. And possibly at some point the minister might have said no to some of them, but frankly my recollection is that if a college wanted to do something, you know the answer was, you know always yes. – [System participant A]

Two issues arose from the process. The first issue was that of speed. The colleges were doing real estate transactions that should have taken a couple of weeks, but instead took months. The second issue was that no one interviewed for this thesis had remembered the Minister ever refusing a transaction proposed by a college. This suggested that the colleges were capable of making their own operating decisions and in fact, did not need to be as tightly regulated.

There wasn’t a really good match between the activities that the ministry was up to in terms of regulation and how you might operate a college system with 24 institutions and, at that time, close to 150,000 students. You know there was a complete mismatch between, you know what the ministry was doing there and the actual operational needs of trying to run a college...And it just seemed like a lot of things were being regulated that weren’t of a great use of anybody’s time, so there was change of approach in that charter that tries to get the government out of making micro decisions. – [System participant A]

Overall, the colleges felt that the Ministry overburdened them with seemingly unnecessary reporting:

And we laughed because we'd be sending in stuff they'd never read, and we'd never hear back on anything they wanted. It was an era where too much public money is being spent. And so, the government needs to cover their ass, so to speak, by saying we're on top of this. The only problem was, as we see it to a certain extent, a lot of busy work, particularly if they're not going to respond in any meaningful way back. But they can just put on a show and say well we've got all these reports. - [System participant C]

Furthermore, colleges from the rural areas felt that the Toronto-based CoR was not able to make effective decisions for them.
Respondent: I mean, what’s the point of a local board of governors if they can’t decide anything? When I started in the college system, any new program had to be approved by the government… by an arm of government in Toronto.

Interviewer: Are you referring to the Council of Regents?

Respondent: Yeah, yeah, that really was an arm of government. Well, what on earth did that group know about what was needed in North Bay, or London, or anywhere else? And if it was serving the system well, it became a rubber stamp, which is largely what it did, so in other words, it was useless and so eventually was abolished. – [System participant C]

4.2.3.7 Program approval and quality assurance.

Program approval and quality assurance processes were located external to the colleges, in the CoR or in the Ministry. There were three main issues with the program approval process being outside of the individual colleges: variability in turnaround time, lack of Ministry resources, and accountability.

Colleges prided themselves on being responsive to the needs of industry. However, the colleges found that the response time from the Ministry for program approval was too slow; compounding the issue was that there was variability in the response times from the Ministry. As a result, colleges were unable to plan the work flow for program creation.

With respect to lack of Ministry resources, due to the breadth and levels of the programs being proposed by each of the 24 colleges, the Ministry lacked the content-specific expertise to give feedback on programs. The Ministry’s feedback was limited to whether due diligence was taken.
Under the paradigm defined by the program approval process, the accountability for program quality fell to the Ministry, and the number of programs system-wide made it almost impossible for the Ministry to assure program quality.

Initially, program approval was handled by the CoR and then moved directly to the Ministry around the mid-80s. However, the process remained essentially the same. Colleges would have to submit a program approval request. The request consisted of overall program development, assessments of the labour market need and student demand, feedback from the program advisory committee, adherence to the program standards and any regulatory bodies if applicable, and assurance that the program title and learning outcomes were appropriate.

When submitting a new program proposal, a college needed to send it out to all colleges for them to approve it on the basis of non-competition. Twenty-four colleges, each with a significant number of programs, had to submit both new program approval and program changes even as insignificant as course name changes.

Within each college, the program would go through a process to create the program request that included development from expert faculty, and review from a program advisory board and the vice-president academic. The CoR or the Ministry, depending on the time period, ensured that the information provided within the program request was acceptable and that the college did its work with diligence. At the end of the process, the Ministry granted or denied funding approval for the program or program change.

4.2.3.7.1 Turnaround time.

The first challenge that the colleges faced with the Ministry-based process was the turnaround time. The program approval process was time consuming and untimely for the
An example timeline (shown in Table 4.1) for a college launching a program, working backwards from September 2000 would be:

### Table 4.1
*Reverse Timeline to Offer a New Program for September 2000*

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2000</td>
<td>Proposed program start date</td>
</tr>
<tr>
<td>February 2000</td>
<td>Student college applications due to Ontario Colleges Application Services</td>
</tr>
<tr>
<td>September 1999</td>
<td>Recruiters out to high schools, and internationally</td>
</tr>
<tr>
<td>June - August 1999</td>
<td>Recruitment material approved and made</td>
</tr>
</tbody>
</table>

From a college point of view, you know you want to offer a program for September [2000] ... Let’s say well you know by about October [1999] you know the ministry still hasn’t said yes or no about your program... How are you supposed to advertise that, how are you supposed to include it in your recruitment campaign? – [System participant A]

Any final program approval from the government would need to happen at the very least 14 months before the first intake of a program. Even before that approval occurred, colleges needed to develop the program, including some curriculum development, and gain program advisory and administrative approval of the program. In the best-case scenario, the college internal process could be six months. Therefore, without any delay from an external body, a college would take just under two years to bring a program from the idea stage to having students in the door. From the colleges’ perspective, any delays in launching programs decreased the responsivity of the system to industry. Any delays in government approval that interfered
with the June 1999 approval date would have set a program back an additional twelve months because the college would not be able to offer the program until the next academic year.

4.2.3.7.2 Lack of ministry resources.

Prior to the legislative changes, the colleges had to submit program approvals to the Ministry. On top of system planning, policy making, and funding, program approvals were also part of the ministry’s responsibility. With a limited number of people working in the Ministry, there was a feeling that program approval was a rubber stamp. – [System participants A, B, F]

One of the staff from the ministry would look at all your documentation and try to come to some judgement about whether it was a high-quality program ... And again, you face the problem that no matter how good these people were, you know they were not providing the sort of perspective you might get from ... say a vice president academic who deals with program quality throughout their career. – [System participant A]

The colleges offered programs ranging from business to health to arts, varying in level from apprenticeship to graduate certificates. There was little specialized program expertise at the Ministry where decisions were occurring. As a result, the Ministry’s program approval process was an extraneous level of bureaucracy that made the college system less responsive. The amount and type of resources required for an accountable program approval process did not match with what was available at the Ministry.

4.2.3.7.3 Accountability.

The entire structure of the program approval and quality assurance process was located above the level of the college. The final responsibility for ensuring quality programming did not stay with the colleges. As a result, the colleges had not built their own institution-wide structured program development or quality assurance mechanisms. At one college, the new program
proposal process was distributed throughout the college. Furthermore, each of the academic
deptments was responsible for the entire program development cycle, so even within the
college the process was not uniform.

At many colleges, [program development] was a highly-decentralized process
where you know if a new program was to be invented, probably the person
spearheading was the dean or even a faculty member who was quite interested in
that program. And there was a relatively weak central process within the college
for either launching new programs or vetting them before they were launched. –
[System participant F]

After academic programs were developed, the colleges were not forced to examine the
quality of their programs on an on-going basis. Quality assurance processes may have differed in
rigour between colleges because there was no external pressure for any of the colleges to develop
an internal program quality assurance process.

The biggest downside of that whole process is that once you got your approval
that was the last time the ministry checked in on you. You had your approval for
the rest of eternity; it didn’t matter what you did with the program, as long as you
kept offering the program under that title. There was no further quality review. –
[System participant F]

Centralized decision-making for all 24 colleges had become overwhelming. In the IARC
report (Skolnik et al., 1985), the authors found that program quality was not systematically
monitored within the colleges, and that the scope and amount of program approvals were too
much for the Ministry to competently handle. After programs were approved by the Ministry,
they were rarely looked at again. Further, the Ministry approval and review processes were not
well respected by the colleges. The main metrics for determining program quality were attrition
and job placement rates. Since then, arguably better metrics have been developed for measuring
program quality through the Key Performance Indicator (KPI) program. There were points in time that the colleges filed their program reviews with the Ministry. However, the government was unable to follow-up and the government’s role in program review fell apart. In essence, there was no entity directly accountable for the program review process.

4.2.4 University-college relations.

The Ontario post-secondary system was designed be a binary system: universities and colleges. Students going to college were the ones “for whom a university course is unsuitable” (Government of Ontario, 1967, p. 11). The original design did not make room for a transfer credit mechanism, and the colleges were limited by the credentials they could offer. The binary system design provided a number of issues in the Ontario post-secondary system by creating two isolated systems that provided similar services, but did not effectively work together.

4.2.4.1 Degree granting.

According to their respective charters, each university is granted the power to confer degrees, and autonomy is vested in the board of governors and the academic senate to determine how best to achieve the university’s mandate. The power of the universities was further enhanced by the Degree Granting Act, 1984. The Degree Granting Act protected the usage of the term ‘university’ and provided limited means for out-of-province and private institutions to offer degrees in Ontario; in effect, the legislation gave Ontario-funded universities a virtual monopoly over degree granting in the province (Skolnik, 1987). As a result, there were very few out-of-province institutions or private institutions offering degree programs within Ontario. Furthermore, non-Ontario universities needed to apply to the Minister every three years to get re-

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17 The University of Toronto is an exception to the governance structure explained above. The University of Toronto has a single governing council that consists of its constitutive bodies.
approval to offer degrees. The opinion of a government official from the time period was that the
government did not have the internal infrastructure necessary to support out-of-province or
private degree granters. The people doing the reviewing of applications were staff at the Ministry
who may or may not have had the academic qualifications to make sound judgements. – [System
participant A]

4.2.4.2 Credit transfer issues.

In Ontario, there was, and still is, no systematic way for students to transfer between
institutions or to apply credit for learning done in a previous credential to a more advanced
credential, meaning that students often have to spend time and money repeating previous
learning. Issues with credit transfer have been outlined in several governmental reports (Ontario
Council of Regents, 1990; Pitman, 1993; Rae, 2005).

In 1993, the “No Dead Ends” taskforce found that college graduates were deterred by
having to negotiate on an individual basis the process of applying for advanced standing in
university programs. Graduates from CAATs without predetermined transfer agreements
received much less advanced standing than their counterparts who came from CAATs with
predetermined transfer agreements (Pitman, 1993).

The learning they had acquired in the college system was not being recognized,
particularly by Ontario universities and it was much more readily recognized in
other provinces of Canada and in other countries of the world. – [System
participant C]

Several minor attempts at establishing credential recognition have occurred. In 1996, the
government established the College University Consortium Council (CUCC) which had the
responsibility "to facilitate, promote and coordinate joint education and training ventures by
Ontario's 25 colleges and 18 universities” (College University Consortium Council, 2011)\(^{18}\). In 1999, the college and university system reached an agreement called the Port Hope Accord. The Port Hope Accord established a preliminary framework for program-to-program transfer between college and university programs. Many transfer agreements were set up between specific university and college programs. However, largely, what existed within the system were one-off attempts at transfer agreements rather than anything systemic. Furthermore, many of the established transfer agreements still did not provide a great deal of credit transfer. Rae (2005) found that “the agreements constitute an uneven patchwork and little progress had been made toward systemic change in the role of the colleges in relation to the universities” (Skolnik, 2010, p.2).

Skolnik (2010) found that transfer agreements between the colleges’ technical education programs and a degree program were difficult to establish because of the ordering of the courses in the respective programs. In university programs, students take general first and second year courses and then start taking more specialized courses in the third and fourth years. However, in a college program, students have already taken the specialized courses without the general first two years.

4.2.4.3 **Lack of funding incentives.**

The largest barrier to collaboration between colleges and universities, outside of credit transfer, was the lack of funding incentives. Until the late 1990s, the first part of the problem was that there was no money allocated toward capital and infrastructure necessary to promote collaboration\(^{19}\). The second part was an incompatibility with respect to the funding models. The

\(^{18}\) Historical documentation on credit transfer can be found on www.oncat.ca.

\(^{19}\) Around that time, the government provided capital funding grants for collaborative programs. A by-product of such a funding program was the University of Guelph-Humber.
Ontario government funded universities using a corridor funding model that did not fund additional students beyond a ceiling enrollment per university. In the early 2000s, the Ontario universities were experiencing more student demand than they could handle. The addition of students from transfer agreements would pull away from the ability to accept traditional students (Skolnik, 2005). Ontario’s universities did not have a financial incentive from the government to process transfer credits from college graduates. Furthermore, no mechanism existed for institutions to reach agreements regarding the transfer of funds.

4.2.4.4 SuperBuild and university partnerships.

Many policy decisions and policy outcomes with respect to the colleges were intersecting between 2000 and 2003. Ontario had launched a $20 billion over five-year provincial Infrastructure building program called SuperBuild. The colleges and universities were set to benefit from $1 billion for various infrastructure projects in the system. The idea of the investment was to build 73,000 new spaces for students by 2003 in preparation for the double-cohort associated with reforms in secondary education, as well as the increasing population of youth working their way through the school system (Ontario Ministry of Finance, 2000).

The applications to access the new infrastructure spending supported inter-sector collaboration. The SuperBuild program catalyzed partnerships between Humber College and University of Guelph, Humber College and University of New Brunswick, Seneca College and York University, Centennial College and University of Toronto – Scarborough, University of Ontario Institute of Technology and Durham College, and various programs between Georgian College and several universities (Laurentian University, Nipissing University, York University, and University of Windsor).
These partnerships could be seen as some of the first meaningful college-university interactions since the beginning of the college sector. Some of the arrangements involved 2 + 2 degree arrangements, offering joint programs, and offering programs on another institution’s campus. Part of the process for the colleges involved them altering their traditional ways of doing things to fit more in line with the universities, especially in situations where the college was offering courses used for credit transfer. In many cases, the colleges needed to change their hiring practices, upgrade their course descriptions and outlines, follow a more traditional university delivery method for courses, and adapt to the university paradigm within degree offering.

4.3 Revenue Sources

Looking at the revenue sources of the college, there are three distinct time periods: before 1996, 1996 to 2006, and after 2006. Prior to 1996, between 70-80% of each institution’s funding came from some form of government grant or contract. Large changes to college funding came into effect for the 1996 operating budget, the Ontario government made a sweeping 15% cut to its public-sector institutions. Both the federal and provincial governments cut public funding to colleges; funding from government grants fell to less than 50% of total revenues. Significant changes occurred within the system as a result of these funding cuts until 2006, when the provincial government announced the Reaching Higher plan which introduced new money into the system and a new funding formula model for the colleges.

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20 Two years at a college followed by two years at a university in order to get a four-year degree
4.3.1 Grants.

Funding from the province came from two separate envelopes: capital and operating. Both funding envelopes have always been designed to advance the government policy initiatives. The provincial General Purpose Operating Grant was designed to provide equity for all colleges and college programs, and to encourage system growth. From 1965 until about 2005, the college operating grants were distributed using a ‘share the pie’ funding mechanism. The government allocated a level of funding to be shared by the college system. Each college was funded on its proportion of the system’s total Weighted Funding Units (WFU). A WFU is a pre-assigned program weighting (based on varying program costs) multiplied by a program’s enrollment.

The implications of the funding formula were that a college could only increase its share of total funding by growing faster than its peer institutions. Overall, “the net effect of the funding arrangement was that colleges were competing to expand faster than their peers and consistently receiving lower government support on a per-student basis” (G. A. Jones, 2013, p.15). The result was unsustainable growth at the larger urban colleges, and the loss of necessary base funding for smaller, rural colleges located in areas where the college-age demographics was shrinking.

None of the colleges liked the traditional, non-selective concept of growth, defined in terms of statistical percent increase in total enrolment. Colleges expressed concern that the formula forced them to grow at inappropriate rates and to stress quantity over quality. The penalty for not growing at the system-wide average rate of growth is to incur a reduction in funding which could leave a college even worse off than if it had grown at a faster rate than it deemed appropriate. (Skolnik et al., 1985, p.71)

The colleges were in search of a change in the funding mechanism that included a main fixed-share base fund model, with possible incentives for growth, performance, strategic projects and collaboration (ACAAATO, 1999).
4.3.2 Training contracts.

In the early 1990s, colleges were a preferred provider for federal and provincial training contracts which provided a steady stream of income. However, in the mid-90s, the federal government cut its social transfers to the provinces, and opened up competition to private sector trainers and the unions, making the colleges’ steady income stream more tenuous (Gordon, 2005). The provincial government soon followed suit and cancelled their guaranteed training contracts with the colleges. One of the colleges’ main streams of revenue was in jeopardy.

4.3.3 1996 Funding cuts.

From the formation of the colleges until the mid-1990s, the majority of annual operating revenue for the CAATs came from provincial grants, student tuition, and federal and provincial training contracts. The 1996 funding cuts resulted in the colleges needing to find alternatives to balance their budgets including operating cuts and finding new revenue. The following section will outline how funding shifts became the driver for change in the college system.

In the 1995-96 academic year, the colleges faced large cuts to their governmental grants. Below is a table showing the percentage of total funding the Ontario college system received before and after the funding cuts.

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>1995 Revenues</th>
<th>1999 Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>($M)</td>
<td>(% of 1995 Total)</td>
</tr>
<tr>
<td>General Purpose Operating Grant</td>
<td>691.7</td>
<td>39.9</td>
</tr>
<tr>
<td>Skills Training: Federal</td>
<td>79.3</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Table 4.2
System Revenues, 1995 and 1999
Table 4.2 shows the large shifts of dependency in the colleges’ operating revenues. After the large cuts in operating grants to the colleges in the 1995-1996 academic year, grants from government sources fell from 67% of operating budget to 52% of operating budget. The total revenues remained flat, not taking into consideration inflation or per student funding. WFU funding decreased from approximately $3600 in 1995 to about $2950 in 1997 (ACAATO, 1998).

However, a large part of the funding shortfall was covered by reaching into the pockets of students in the form of tuition. In terms of possible solutions for the colleges to get additional funding to compensate for lack of government funding, increasing tuition was the easiest solution. By 1999, tuition accounted for 25% of the college operating budget as opposed to 16% in 1995. An ACAATO Environmental Scan indicated that college tuition increased by 52% in the period of 1995-99 to $1684 per year (ACAATO, 2000).

After the substantial funding cuts of 1996, colleges were forced to find ways to balance their budgets. There were only a handful of options open to them. Much of that shortfall was funded by tuition increases, but individual colleges still needed to find ways of lowering costs.
and diversifying their revenue streams. Some colleges removed less profitable programs and cut faculty.

Sir Sandford Fleming College’s approach to the funding cuts is documented in several publications (E. Jones, Winter 1996; Sir Sandford Fleming College, 1996). Fleming College needed to make up a projected deficit of $8M. The college removed a layer of management (deans, directors and managers). The college shrunk from 530 to 463 employees, a reduction across three employee groups: faculty, support staff and management. The college adopted an unorthodox structure in the academic departments; led by faculty holding coordinator allowances. Four programs were suspended, the third year of three year diplomas were removed, and course hours were reduced. Non-salary costs were reduced by closing several facilities and reducing travel and other discretionary spending. A Training and Development Services unit was established with the hopes of generating upwards of $3M in revenue within three years in an attempt to make it a viable income source.

In addition to the funding cuts, the boards of individual Ontario colleges were not allowed to approve a budget with an accumulated annual deficit (MTCU, 2003). The 1996 cuts divided the colleges along financial lines; those that had financial maneuverability going into 2002 and those that did not.

**4.3.4 New funding sources.**

Another large shift to notice is growth in ‘other’ revenues, from 4% to 12%. The provincial government announced a Strategic Skills Investment program that focused on training strategic skills essential for building the business competitiveness of Ontario’s training institutions to address business needs. The funding was for $130 million. However, increasing the ‘other’ budget line involved a great deal of work that colleges were unfamiliar with. They
needed to actively partner with industry to build cases for additional funding. The colleges also maximized ancillary revenues in the form of bookstores, parking, residences, etc.

4.3.5 Performance funding.

In 1999, the provincial government introduced a performance-based funding envelope. The government created a set of Key Performance Indicators (KPIs) measuring graduate employment, and employer and student satisfaction (Callahan, 2006). Those KPIs formed the basis for determining the recipients of the performance-based funding. Based on the raw results of the KPIs without any adjustments, the colleges were divided into thirds. The top third of KPI result getters got 2/3 of the performance funding envelope. The second third shared 1/3 of the envelope and the bottom third got none.

The government adjusted the distribution of the performance grant in the subsequent years. In the following years, system benchmarks were established and colleges received a portion of KPI performance funding based on whether or not they surpassed the system benchmarks. There is a thesis by Callahan examining the history and implications of KPI funding for the colleges (Callahan, 2006).

4.3.6 Interim funding formula and the college funding framework.

In 2005, the provincial government introduced the Reaching Higher plan that introduced $1.6 billion in funding to the operating grants of the colleges and universities over the next three years. The government moved away from the ‘share the pie’ model to a new College Funding Framework (CFF). With the idea of fully implementing the new CFF by 2009, the government used a transitional funding formula for the years between 2006 and 2009 (the Interim Funding Formula, IFF).
The CFF operating grant consisted of two main envelopes: base funding and growth funding. For each of the envelopes, the government allocated a set dollar amount per funding unit (either a base funding unit or a growth funding unit). As of 2012, the base and growth funding units were set to the same value. The implication of setting the same value for each type of funding unit was that the government was not trying to interfere with college growth by putting an incentive or disincentive to grow. However, the way that the formula was constructed, the government could easily put a disincentive to grow by lowering the set dollar amount per growth funding unit.

The college system funding model used a slip-year model that looked at the total WFU of past years. The slip-year model created a more predictable and less variable base for distributing the operational grant to the benefit of both the government and the colleges.

The colleges’ base funding is determined by the lower number of funding units between two time periods: The Base Reference time period or the Base time period. The Base Reference time period is the average WFU of the 2005-06, 2006-07, 2007-08 academic years. The Base time period is the three-year moving average with a two-year slip. For example, the Base time period for 2012-13 funding would be the average number of WFUs in 2008-09, 2009-10 and 2010-11. This base part of the formula means that any college that continues to grow will keep the same Base funding (as determined by the Base Reference time period).

Thus, any growth after the Base Reference years could possibly not be fully funded if the government changes the value of the growth funding unit. Based on this understanding of the CFF, it could have been a strategy for the colleges to grow as fast as possible between 2005 and 2008 to inflate their WFUs over the Base Reference years of 2005-08 to make a higher, hence more stable base funding. Furthermore, if colleges get smaller than the 2005-08 Base Reference
time period, then their base funding could start to decrease. This part of the funding formula was meant to maintain stability in the funding calculation and possibly control future growth in the sector.

Growth funding is calculated as a two-year moving average with a two-year slip, meaning that in 2012-13 that the Growth Units would be the average number of WFUs in 2009-10 and 2010-11 greater than the Base units.

As part of the funding mechanism, the government also built in a 4% base funding holdback. The Ministry created a provision to release the holdback after the colleges submitted their annual accountability documents.

4.3.7 International students.

International student enrollment does not get counted under the WFU calculation because the college does not get government grants for those enrollments. Furthermore, international student tuition revenue is considered unrestricted and does not need to be allocated to the operations of the college. That revenue can be set aside for any financial need of the college, including buildings, special projects, academic capital and so on. Colleges usually set international tuition higher than the domestic tuition plus operational grant dollars. Through the time period of the study, Ontario colleges became, and still are, dependent on international tuition to balance their budgets each year.

4.4 The Legislative Changes

The operating and governance structure of the Ontario CAAT system had not formally changed since the original legislation. As seen in the sections above, many of the processes required from the Ministry did not use the government’s resources effectively, nor did they allow the colleges to make decisions in a timely manner or within their realm of expertise. From both
the government and college perspectives, the regulative mechanisms for the college system were outdated and not effectively serving the needs of the system. In 1999, the college presidents put together a formal call for a new charter.

The college presidents argued that although all 25 colleges (at the time also Grand Lac) shared the mandate for providing career education, each college operated in different environments, faced differing complexities and fulfilled their mandates using different processes. Colleges were located in different geographic locations, serving different industrial and cultural communities with differing needs. Some colleges were on a single campus whereas others had a handful of campuses. The colleges felt that the then-current college charter was restrictive as it viewed the colleges uniformly, limiting their capability to respond to training demands and source new revenue (ACAATO, 1999, p.4).

The call for a new charter specifically asked for authority over program development and approval, the formal removal of catchment areas, transference of some audit and reporting requirements to the local board, authority for real property transactions, authority to hire and compensate the president, increased control over collective academic and support staff bargaining, the ability to create and participate in business ventures and the ability to offer degree programs (ACAATO, 1999). In response, in 2000 and 2002, the government changed the legislation governing the college sector.

4.4.1 The Acts.

The college charter consisted of more than the Ontario College of Applied Arts and Technology Act, 2002. The overall structure and capabilities of the colleges were also defined by

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21 Prior to the charter many colleges were already looking for students outside of their catchment area.
the collection of Ministry policy directives, the MCTU Act, 2002, the Post-secondary Education Choice and Excellence Act, 2000, the Colleges Collective Bargaining Act, 2008, and their respective associated regulations. This section will now examine the relevant impact of each of these statutes.


The Post-secondary Education Choice and Excellence Act, 2000 replaced the Degree Granting Act, 1984. The new statute expanded the program and institutional degree choices available in the province. The Post-secondary Education Choice and Excellence Act, 2000 provided a mechanism for institutions other than publicly-funded universities to offer degrees within Ontario (G. A. Jones, 2004). Notably, this Act created the Post-secondary Education Quality Assessment Board (PEQAB) which was assigned the responsibility to review and to provide guidance to the Minister on all degree program applications from institutions that did not inherently have the right to grant degrees in Ontario in their charter legislation. The effect of this legislation and its structures are examined in more detail in section 4.4.4 on Degree Activity.

4.4.1.2 The Ontario Colleges of Applied Arts and Technology Act, 2002.

The Ontario Colleges of Applied Arts and Technology Act, 2002 (henceforth the “Charter”) expanded the powers of the colleges. According to the new legislation, the objects of a college:

are to offer a comprehensive program of career-oriented, post-secondary education and training to assist individuals in finding and keeping employment, to meet the needs of employers and the changing work environment and to support the economic and social development of their local and diverse communities.

(Government of Ontario, 2002)
It provided additional means for the colleges to carry out their mission: it allowed the colleges to freely enter into partnerships with business, industry, and other institutions and engage in applied research.

The Charter suggested a more market-based approach for the colleges:

the other thing I would say about the new charter, and actually both of those [pieces of legislation], is the whole idea that the student should have choice. The student should have choice and that competition would breed excellence and so you know that became a fundamental premise of everything that we were doing. – [System participant F]

4.4.2 Reaction to and understanding of the legislation.

The colleges had identified a number of issues with the structure of the system that they wanted changed. The changes in legislation exposed the colleges to number of new activities, mandatory and optional. The mandatory activities surrounded the themes of operational autonomy and accountability. Whereas the optional activities gave the colleges more flexibility to respond to their local needs. As part of the argument to release the Council of Regents of its centralized control, the colleges had long argued that each colleges’ operating environment was sufficiently different and that each college had different local needs. The Ministry acknowledged the differentiation within the college system.

In 2000, the Ministry asked the colleges how they would like to differentiate themselves within the system. The College Charter in 2002 reinforced the differentiation strategy within the colleges sector by giving permission to the colleges to engage in applied research, and creating an official differentiated status for six institutions within the system. Five institutions were granted the ability to offer 15% of their programming as degrees, while the rest of the system was limited to 5%. Along with the ability to offer 15%, those colleges were referred to as an
Institute of Technology and Applied Learning (ITAL)\(^\text{22}\). Three of those select colleges chose to use that title and two colleges did not. Georgian College received permission to use the term ‘university’ in the title for its ‘Institute of University Partnerships and Advanced Studies’.

The legislation marked a change in cultural and operating paradigms for the colleges. First, it gave the colleges more operational autonomy than they had before. Second, as a by-product of the autonomy, the legislation moved the responsibility of accountability away from the Ministry and down to the college system. Below are two comments from long-serving college administrators:

This overarching legislation of the [College Charter], which if I could put it in one sentence, was effectively to provide the colleges more autonomy in law than they had had before. – [System participant C]

The Act legitimized the fact the colleges were growing up as institutions and they were well-established. And it was time to give the colleges some more autonomy that they had not enjoyed in theory from the 1965 Act. – [System participant B]

Inherent in the new autonomy for the colleges was a new culture of responsibility. Colleges, as a system and as individual institutions, were now responsible for creating and delivering their programming under their budgets without external approval. Quality assurance and effective resource usage more concretely fit under their domains.

I think that it kind of changed the culture in the college system because it pushed the authority down, it allowed us to think about being in charge of our own destiny because it was kind of the devolution of authority to the local boards rather than the Ministry. That that was an important piece. – [System participant F]

\(^{22}\) The ITAL label was declared in Reg 34/3. Humber College, Conestoga College and Sheridan College used the ITAL label. Seneca College and George Brown College did not.
These changes marked a significant operational and psychological shift for the colleges. Now, colleges were able to make local operating decisions, but also owned the accountability of making those decisions. Local decisions were no longer vetted by the Ministry. As a result, for decision-making at the Board and for reporting purposes, more robust data on internal structures was demanded. Decision-making processes became more data-driven. As we will see in the following sections of this thesis, colleges started creating internal institutional research departments. The role of those departments was to produce the annual accountability reports and identify performance issues with college programming.

Many of the respondents in this study noted that the legislation, in addition to legitimizing changes already occurring in the system, was highly symbolic of the paradigm shift of autonomy and accountability which the colleges were expected to operate under – [System participants A, B, C, F, G].

**4.4.3 System’s accountability structure.**

One major impact of the legislation was that it localized academic and transactional approval. Firstly, the overview of academic development, through program creation and quality, shifted from the Ministry to the colleges which led to new governance structures internal to the system and each college. Secondly, the colleges received the power to locally approve real estate transactions, enter partnerships, and make subsidiaries through its board of governors. In order to balance the power that the government gave to the colleges, the government added additional reporting requirements to the colleges that they did not have before. In the sub-text of the environment, the legislative changes were happening in the same time period as colleges were becoming less dependent on the government for revenue generation; they needed to respond to a number of new important stakeholders in the environment for revenue.
As the colleges were gaining autonomy in some areas, the introduction of two new academic activities introduced two new sets of external actors. Degree offering and applied research added new external governance structures that became quite important to the colleges in the form of PEQAB and research funding bodies respectively.

The Charter replaced the Ontario Council of Regents with the College Compensation and Appointments Council (CCAC). The CCAC was mandated to be responsible for college governance issues, appointment of college boards, and collective bargaining, and to help with the compensation of the colleges’ presidents and administrative staff. The CCAC operated under the framework provided by the college presidents as opposed to the Ministry.

With respect to collective bargaining, the government transferred the negotiation process over to the purview of the colleges. In 2008, the government changed the Colleges Collective Bargaining Act, 2008. The act of collective bargaining was now handled by the College’s Employer Council, whose direction was determined by the presidents and board chairs of the Ontario Colleges. The Act also gave the colleges’ more tools to affect the negotiation process, as outlined in the Whittaker report (Whitaker, 2008). Arguably, overall, the colleges had gained greater control of their balance sheets.

In 1997-98, the colleges directed ACAATO, the colleges’ umbrella group, to shift its mandate from one as a secretariat to more of an advocacy role. To that end, ACAATO hired staff to start communication campaigns for pre-election, key performance indicators, recruitment, and media relations. After the legislative changes, ACAATO rebranded itself to become Colleges Ontario.

Outside of the former CoR’s human resources function, all other functions, including planning and regulative responsibilities, were dispersed to the individual colleges’ Boards of
Governors and Colleges Ontario. Program approval and oversight mechanisms were transferred from the Ministry to colleges’ boards and a new self-regulating mechanism: under Colleges Ontario, the government created a new arm’s-length body called the Ontario Colleges Quality Assurance Service (OCQAS). Although OCQAS was mandated by legislation, it was created with no reporting relationship to the government and was funded by Colleges Ontario, the association of college presidents and the local board chairs. OCQAS was formed to put quality assurance mechanisms in place to aid in college program approval and development. Figure 4.1 illustrates the relationships in the new quality assurance structures.

Figure 4.1 Organization of Quality Assurance Actors in the Ontario College Sector

The OCQAS created two further bodies: the Credential Validation Service (CVS) to do program level validation, and the Program Quality Assurance Process Audit (PQAPA) to look at institutional level quality assurance processes. The CVS verifies that proposed college programs fit into the Ministry-approved Ontario Credential Framework before forwarding applications to the Ministry to approve funding. The PQAPA is an institutional-level auditing process that ensures that the proper quality assurance mechanisms are being utilized. The PQAPA process allows each college to set their own appropriate internal quality processes according to their local environment.
4.4.3.1 Institutional quality assurance process.

As part of the Charter, the government asked the colleges to work alongside the Ministry to create system-level structures for self-regulation. Colleges Ontario started by creating the institutional-level audit of quality assurance processes under the title of PQAPA. To reflect a little on the system logics of the time, two senior administrators from different colleges [System participants C, F] expressed that the pressing need to create a robust quality assurance process at the system-level was driven by the colleges’ desire to avoid government intervention, not necessarily because it was the correct action to take.

Colleges Ontario developed OCQAS which create the PQAPA process. If it didn’t do it and then there were problems with the approval of programs, then there probably would be some kind of externally imposed quality assessment process. So, we went into that with a vengeance and I think we’ve done a pretty good job. – [System participant B]

The PQAPA process encouraged the colleges to create structured internal quality assurance processes. Many colleges formed their internal processes looking for continuous improvement. For many colleges, if not all, it meant creating a specific department that looked after institutional research to gather data for continuous improvement and program quality assurance to support academic and service program reviews. Speaking of his own college, one president commented on how critical his college was on the self-assessment:

I think it’s a good process, but it’s no small task. We’re about to start the second round now. Having done the first round, we thought we were doing really great, but when we did the self-assessment, of five criteria, we only met three of them, and needed to improve in two and they agreed with us. It’s forcing us to look at it internally, and say that we should be doing better here and we should be doing better there. It really did motivate that. – [System participant C]
Administrators at other colleges echoed the statement by System Participant C. They felt the ownership of the auditing process motivated them to implement better quality assurance processes internally.

**4.4.3.2 Program quality assurance.**

In addition, to fulfil the PQAPA reviews, colleges had locally created formal and structured institutional program review processes. Many of the processes expect programs to be evaluated on a periodic basis which includes a simple annual review of the KPI data to identify any visible outcome problems, and a five- to seven-year full program review which includes a self-study and possibly an external validation of programming. Colleges, until present day, are still struggling with balancing the rigour of the program review with the available resources set aside for program review at the college-level and at the academic department-level.

Our [the QA department] reporting requirements on the program departments were becoming too onerous and in some cases redundant. See, we had set up the QA so that people were reporting every other year. It’s too much. And the departments were becoming confused about which report… With 60 or 70 programs, we can’t possibly look at more than 20 in a year. I think that’s simple.

– [System Participant I]

In terms of timing, many program quality assurance procedures were being established around the same time or just after the colleges had applied for degrees. Many colleges opted to model their quality assurance process on those outlined by PEQAB for the degree programs. This is one of the several ways that PEQAB unintentionally influenced the structure of the system. Those quality assurance processes are outlined in the Degree Activity section of this chapter.
### 4.4.3.3 Program development process.

Table 4.3 shows the changes in responsibilities of the program development flow between the Ministry and the colleges before and after the legislative changes.

#### Table 4.3

**Summary of Roles and Responsibilities in Approval and Funding of Program of Instruction, 2003**

<table>
<thead>
<tr>
<th>Area of consideration</th>
<th>Prior to April 2003</th>
<th>Responsibility in New System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Program Development</td>
<td>Colleges develop proposals/ modifications for programs of instruction according to their individual processes. Boards of Governors, through the Colleges’ presidents, submit these to MTCU for approval</td>
<td>College develop proposals/ modifications for programs of instruction according to their individual processes and submit these to their Boards of Governors for approval</td>
</tr>
<tr>
<td>Labour Market Need</td>
<td>MTCU assesses information submitted by college</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Student</td>
<td>MTCU assesses information submitted by college</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Program Advisory Committee</td>
<td>MTCU assesses information submitted by college</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Meets Program Standard</td>
<td>MTCU assesses information submitted by college</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Meets requirements of regulatory body where applicable</td>
<td>MTCU assesses information submitted by college</td>
<td>Board of Governors</td>
</tr>
<tr>
<td>Program Learning Outcomes established at appropriate levels</td>
<td>MTCU assesses based on information submitted by college</td>
<td>CVS validates outcome level against credentials framework</td>
</tr>
<tr>
<td>Title is appropriate to program category</td>
<td>MTCU assess against provincial nomenclature and titling principles</td>
<td>CVS validates title against provincial nomenclature and titling principles</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>Funding approval for program</td>
<td>MTCU</td>
<td>MTCU, if requested by college. Funding decisions made consistent with Minister’s Binding Policy Directive: Funding Approval of Programs of Instruction</td>
</tr>
</tbody>
</table>

Note. Adapted from Seneca College (2003). A document distributed to the colleges by MTCU.

The Ministry created the Ontario Credential Framework to outline the expectations of each level of study at the college. The establishment of the Ontario Credential Framework alleviated confusion about the constitution of different levels of programming. The CVS evaluated program submissions from the college against the Credential Framework to make sure the college’s program was set to the correct credential. The colleges appreciated the new program approval flow because it allowed programs to be developed faster.

Well, the approval from CVS is very quick. The approval from the Ministry was very slow. And so at least we have the program in essence approved. The CVS consultation has been really, really helpful in terms of ensuring that our programs are at the right level. – [System Participant H]

The feeling around the process of program approval was different than in the previous structure. In the old structure, the guidelines for successful program development were unclear and the colleges felt that program submissions were being unduly scrutinized, “whereas at CVS it’s how can we substantiate the validity of your process”. – [System Participant H]
4.4.3.4 Reporting requirements.

In the Minister’s Binding Policy Directives, the Governance and Accountability Framework defined the reporting requirements of the colleges. The colleges needed to provide three publicly available reports: a strategic plan, a business plan, and an annual report. The strategic plan was a multi-year plan with a minimum three-year focus that covered the college’s vision, core businesses, and long-term goals. The business plan outlined “specific operational outcomes for the coming year within the context of the strategic plan and the resources allocated for the year” (MTCU, 2003, p.4). It was a summary of the smaller outcomes that the college planned to accomplish over the next year to achieve the long-term goals outlined in its strategic plan. The annual report was a summary of activities that the college undertook in the previous year to achieve the outcomes under the framework of the business plan; it also included the audited financial statements of the previous year. The college president was required to present the documents to the local Board of Governors to be accepted and published.

4.4.3.5 Costs to the system.

The legislation and new accountability structure downloaded a number of quality assurance and reporting processes to the colleges. As a result, the colleges needed to create internal structures to address the new requirements.

It has affected us. Our college now has an Institutional Planning and Research department that we started with two people. Now I’ve lost count; I don’t know how many people it is, five or six or seven. We need staff to be producing all that kind of… It isn’t just producing the documents, it’s we need to be tracking the data, we need to have the data, need to project, we need to be able to do that well, so a college the size of ours now has a very sophisticated Institutional Research Planning department that does all of that work. The real expense is the work done
by the college before anybody comes in. We think that that is a value. – [System Participant J]

The program quality assurance procedures were very work intensive on the academic departments and the institution as a whole. Colleges created bigger internally centralized departments to assist the academic departments with program review.

4.4.3.6 Subsidiaries.

The colleges were allowed to set up subsidiaries under the legislation. The provision allowed colleges to set up arm’s length for-profit companies. There are several reasons that a college would set up a subsidiary. The subsidiary structure offered a corporate separation from the college. The bodies could “rise and fall on their own and you couldn’t sink the regular institution if they started to lose money” – [System participant B]. Additionally, the subsidiary could offer compensation different than what was offered through the college system “or to be blunt, you know could pay much higher salaries and ... nobody would know about it” – [System participant A].

4.4.3.7 Choosing board members.

The Minister reserved the right to either appoint an administrator or replace the board if the Minister felt a college was not serving the public interest. From the colleges’ perspective, it moved from a situation where the original legislation gave all the power to the minister to basically saying, the minister’s fundamental power is to be able to intervene in the event of … now, I forget how they describe it… but if they’re going to go bankrupt, if there’s a financial issue, but not going to intervene because there’s some academic problem… [System participant C]

And from the government’s perspective…
And without any sort of power to intervene, you know you were in a situation where public money was being spent and the government didn’t have adequate controls ... It wasn’t a radical intervention; it was simply recognized in return for all these micro controls over things ... Like land sales, we should have a more macro control ... Let’s say to colleges run your own business, if things go really badly we have the authority to replace the board, or to appoint an administrator, but obviously, that’s a very heavy hammer ... [System Participant A]

4.4.4 Degree activity.

From the outset of the Ontario college development, there have been tensions regarding degree granting, credit transfer, and relationships with the Ontario universities. The Ontario colleges were initially designed to offer applied programs to students who were not bound for university. The credentials offered by the colleges were terminal two-year, three-year, and apprenticeship programs. Some professional bodies had started to require their members to have a degree as their minimum entry requirements (for example: nursing and interior design). Some colleges created collaborative degree programs with university partners to address the need for degrees in these areas. However, student demand for programs were moving toward the degree. One long-time college administrator outlined the needs for degrees in the college system:

We wanted degrees for a number of reasons. One, the world was changing and the degree was becoming an entry point which a high school diploma had been for many years.

Two, our students were increasingly terminable in the sense that they would have great difficulty transferring to a university in Ontario. If they had the time, they'd almost have to start over, and that was blatantly unfair.

Three, there were a whole bunch of degrees and we offered one of the clauses when we did get approval which was you had to offer degrees in areas which are
not fundamentally offered at the universities, for which there was an economic utilization. - [System participant B]

Adding degrees into the college functionality introduced profound identity issues for the colleges to grapple with. As a result, degree development became a very localized process that did not involve the whole institution. The timelines did not allow for consensus or even much discussion within the college communities. There was an underlying fear that degree offering would create a two-tiered system between degree offering and non-degree offering colleges.

From the Ministry’s perspective, one commentator stated:

I think our expectation was that some colleges would take up this mission and would start to grant degrees and would do so in addition to their existing activities. There was no expectation that this would become like the largest single mission at any college ... I think history has actually pointed that out ...

We weren’t trying to make colleges into universities, we were trying to say, in certain fields of study, a college might be better than a university ... And that was the intention. It was not intended to have like a deeper structural meaning than that. - [System participant A]

4.4.4.1 Degree approval structure.

The Post-secondary Education Choice and Excellence Act granted the authority to PEQAB to define the process for institutions to apply for degree granting status. Pursuant to that power, the PEQAB board created a handbook and application process. One of the main objectives of the PEQAB process was to inject a form of legitimacy into the new degrees offered by the colleges. PEQAB’s standards were set to provide a comparative quality assessment for new programs, recognize prior learning and credit transfer, and assure that graduates of these programs possessed the abilities necessary for employment and further study (PEQAB, 2003b, p.6).
PEQAB produced three handbooks: one for the Ontario colleges, one for other public institutions, and one for private institutions. Degree offering in the Ontario colleges was introduced as a pilot program with two rounds of applications. The first round of applications was due in December 2001 for a March 2002 approval and the second round was due in May 2002 for a November 2002 approval.

In the Ontario Colleges’ handbook, PEQAB stipulated that degree applications coming from the Ontario colleges could not duplicate any other degrees already available in the system. The degrees would be labelled as ‘Applied’ degrees. The consent process has been the same since its introduction, including a quality assessment from external reviewers with terminal degrees, including an on-site visit and a review of the full program curriculum with course outlines and textbooks. The applicant institution needs to have reasonable access to learning and information resources, such as a library, databases, computing, classroom equipment, and laboratory facilities. The institution also needs to provide academic support services; for example, academic counselling, tutoring, career counselling, and placement services.

4.4.4.2 The PEQAB degree application.

The following section will review the overall process of applying for the ability to offer a degree, looking at the overarching process first, then examining the details of the applications, and finally exploring the implications and issues facing the colleges.

The PEQAB Handbook for the Ontario Colleges outlined the application process for colleges wanting to engage in degree activity (PEQAB, 2003b, p.12). Colleges needed to submit applications for all proposed degree programs to the Minister together with a $5000 application fee. The application was then forwarded from the Ministry to PEQAB. The PEQAB Secretariat acknowledged the receipt of the application, assigned a case manager, and reviewed the
application. The Secretariat also identified the potential Quality Assessment Panel members, posted the application on its website for public viewing, and forwarded the application to the PEQAB board. PEQAB was able to request more information, proceed with the application and decide on quality assessors, or notify the Ministry if it decided not to proceed with the application.

After the decision is made to proceed with the application, the review began and the Secretariat confirmed the assessors on the Quality Assessment Panel and sent the application documents to them. The Quality Assessment Panel reviewed the application against the PEQAB application criteria and submitted a report to PEQAB. PEQAB submitted a recommendation to the Minister. Upon its receipt, the Minister notified the applicant, and the Secretariat posted the decision on its website. The college then signed an Acknowledgement and Agreement Form, and was then able to start recruiting students for the program.

4.4.4.3 PEQAB application criteria.

PEQAB defined that the colleges would offer degrees in an applied area of study where the nomenclature was very specific (for example: Bachelors in Applied Business (Electronic Business)). The program would be eight semesters of on-campus study and have at least one paid work term of 14 weeks prior to graduation. Each program application needed evidence that it supported economic need. The evidence needed to include economic forecasts, employer surveys, evidence of need from professional bodies and of student demand. Furthermore, the college needed to collect evidence that it had employer commitment to hire a program’s students in a work placement or after graduation.

The program also could not duplicate any program that was offered already in the Ontario system, either by another college or university. In support of that requirement, colleges needed to
submit a comparison with potentially-related university programs, provide evidence that the program was more than a diploma and that the program met a need that other programs in the province did not address.

4.4.4.3.1 Student admission.

In the application, colleges needed to have admissions, promotion, and graduation standards similar to members of AUCC (Association of Universities and Colleges of Canada)\textsuperscript{23}, an association of universities not community colleges. The standards indicated rules for high school diploma entry into any given program, and acceptance of transfer credits from other accredited degree granting institutions.

4.4.4.3.2 Breadth.

The degree needed a required breadth component where at least 20% of the program hours were outside the main field study, and where one quarter of those hours could be in breadth courses that complemented the program subject area.

4.4.4.3.3 Use of learning outcomes.

As required by the PEQAB application process, the colleges needed to create in-depth course outlines of all courses to be offered in the program. The course outlines were to be designed using learning outcomes detailed enough that they facilitated easier credential recognition and credit transfer between institutions. In terms of credential recognition, the college needed to consult with employers, professional bodies, and other higher education institutions to ensure that they would accept these graduates and help in their professional advancement.

\textsuperscript{23} AUCC is a body that represents universities in Canada.
4.4.4.3.4 Program self-assessment.

The program needed to conduct a self-assessment of quality and effectiveness of delivery methods using standardized student feedback. Furthermore, the college was required to have a periodic program evaluation process. The process needed to occur at least every five to seven years. The program evaluation included a self-study, an on-campus visit from external reviewers, and a final report from the reviewers. The self-study portion of the review included a number of criteria, including:

a) KPI information: graduate employment rates, graduate satisfaction, employer satisfaction, graduation rate, and OSAP default rate;
b) evidence of program adapting to changes in the field of study;
c) assessment of program relevance, program delivery, and curriculum;
d) appropriateness of admission requirements and student promotion;
e) indicators of faculty performance, including quality of teaching and currency in the field; and
f) demonstrations of students’ final work.

4.4.4.3.5 Capacity.

The college had to demonstrate its capacity to deliver the program. In order to meet the requirements, the colleges needed to have enough academic and non-academic staff to support the projected enrollment. The college needed to provide the CVs of each faculty member to demonstrate the combined of academic credential, professional credential and work experience of the faculty. The PEQAB guidelines required that all faculty have at least a Master’s degree, but at least 50% of the faculty had to have a terminal academic credential in the field of study (i.e. Ph.D.).
Furthermore, the institution needed to have policies developed for intellectual property, ethical research standards, academic honesty, and academic freedom for faculty and students.

4.4.4.3.6 Selection of the quality assessors.

The PEQAB process required that each application be reviewed by a panel of three quality assessors. Individuals, in order to be a quality assessor, preferably had a terminal degree in the subject area under review, professional designations, and academic experience that included appraising for accrediting bodies or assessing degree programs. Applicants - colleges in this case - could submit between five and eight names for quality assessors. PEQAB would make the panel, choosing up to three of those candidates, reserving the right to place an assessor that was not submitted.

Colleges also needed to bear the costs of the assessments, including the meals and stay of the assessors and the time it took to make the recommendation on whether to approve the program. The maximum cost determined by PEQAB would not be more than $12,000.

4.4.4.3.7 Overall issues with the application process.

There were a number of issues that degree granting and PEQAB created within individual institutions and the system. First the timeline of degree development was very short. The first exposure that the colleges had to the handbook was September 2001, with the first round of pilot applications due three months later by December 3, 2001. The evaluation of the degrees occurred between December 2001 and March 2002, including the external assessments, at which time came feedback and approvals. Applicants understood the need to add legitimacy to the colleges’ degrees; however, there were many issues with the process, the application, and inferences made by the application.
The first impression from the colleges was that the process was politicized. The colleges did not understand why there needed to be approval from the Minister.

Why would a minister be approving degrees? Do they do that at the universities? No, that's the senate's job or whatever their structure is that they've adopted in the university. So, what's an elected politician doing approving it? To be honest with you, what does he know? What he knows is what a university objects to. Why would York have the ability to open up a degree that's completely competitive with UofT any more than we shouldn’t have that right. So, fair is fair. If this is an argument about public resources, then let's make the rules across the board, but we have to do that within the framework. – [System Participant I]

From the colleges’ perspective, a common sentiment, echoed by the then-president of ACAATO, was that the colleges needed to do ‘somersaults’ in order to offer degrees. The barriers to entry were great. The Minister required non-duplication of programs, did not provide additional funding to develop degrees, and the feeling amongst the colleges was that the Ministry did not give appropriate funding to run the degree programs once approved. The application process, although refined using an iterative approach, caused a lot of perceived and real issues.

One college president described the injustice of the degree process:

No degree that any university in the province of Ontario was offering could be tolerated or considered. And the panels, that would decide whether or not this met the quality, was dominated by university people, who were philosophically opposed to having these degrees in the first place. - [System participant C]

The process of developing a degree program and the application process was costly to the college. The full application was thousands of pages and in some cases, could fill two or three 4-inch binders – [System participant E]. The colleges received no additional funding from the government and consequently, much of the colleges’ additional resources went towards getting degree programs started (Laden, 2005). As such, the negative impact on the CAATs was felt
doubly since the development of degree programs took funding and resources away from developing new diploma, continuing education and/or apprenticeship programs, except where there was directed government money.

You’ve got four years’ worth of development, all of which has to be done up front. There’s a lot of development; labour market analysis and all of that that has to happen up front without any sort of due compensation or anything. That’s all on the colleges’ backs. And then four years before they are actually at full funding, so that’s a long time and a long development process. It’s an expensive process. Not to mention $5,000 application fee, $5,000 for consent renewal, plus the expenses of the assessors are all on our backs. – [System participant F]

To that point in time, the structure of the colleges, specifically individual academic departments, was not resourced to create large, involved applications. Much of the workload for degree applications was in addition to the applicant’s normal operational workload; who was, in most cases, the administrator of an academic department.

An additional challenge that some colleges had in establishing degree programs was the non-duplication of programs requirement. This created several problems. The first problem was that creating something that has never existed is a lot more work than creating something that already exists.

The biggest issue, is the esoteric nature of the degrees, so one has to do a lot of work on curriculum development. If you’re developing something that has never existed before, that requires a heck of a lot of more work than something that’s a modification of something that does exist. - [System participant C]

The second problem was that it was difficult for colleges to find program areas that were unique enough to be deemed non-duplicative and still attract sufficient student demand.

Many colleges rushed forward with some of these and got approval, but they were so esoteric that it was hard to attract students to them. – [System participant C]
It is that critical mass issue. I mean the small cohorts you get into years three and four when you have classes of twelve people; professors get paid the same amount of money as if the class was forty people. So yeah, the cost ratio as you get into the later years is quite expensive and that is why it is necessary to build up a critical mass in order to make it financially viable. – [Niagara employee B]

The third problem was that colleges were having trouble finding professors with the appropriate qualifications to teach in non-duplicated programs.

And some of the most difficult things, statements that you had to have faculty who had training at the most advanced level possible in a field. So, you’re having to find people… an example in our situation of having to send professors off to do PhDs – we have to give somebody a year’s leave of absence to do a PhD in the southern US, because there isn’t any place in Canada where they can get this kind of certification. I mean, all of that adds bigger expense. – [System participant C]

Degree programs required new registrar processes, specific policies for degree students, and specialized faculty for those degrees. For the smaller colleges, it did not make much sense to have such an extensive set of policies, processes and specialized faculty for a handful of programs.

Yeah, I mean finding everything from having the Ph.D. requirement and finding the proper people and again it comes back to that critical mass thing. When you have that many rules and regulations around one program that you can’t integrate into really the whole system, it’s a struggle. [System participant I]

There were concerns that university-type programming and thinking would be pushed on the colleges, and in some cases enforced more strictly at the colleges than they were at the universities. An external review of PEQAB outlined the issue regarding faculty credentialing (Crow, Marsden, & Rubidge, 2011). The PEQAB application required that 50% of faculty teaching in the program needed to have a terminal degree, namely the Ph.D. This created a
philosophical and a cultural issue. The philosophical issue was that colleges by their nature represented applied learning as opposed to the theoretical learning inherent with the Ph.D. requirement. The cultural issue revolved around the applied/theoretical divide. Colleges, like anything else, were unable to predict the future. Faculty members hired as full-time are hired into a union, limiting the flexibility of the college to adjust the composition of the faculty quickly. Uncertain of its future degree offerings, a college that foresaw the development of any degrees was forced to change their hiring practices to prefer Ph.D. candidates over those candidates with more applied experience, thereby changing the faculty identity.

The PEQAB application introduced a requirement of research into the college. According to the PEQAB Handbook, faculty “needed to engage in a level of scholarship, research, or creative activity sufficient to ensure their currency in the field”. The statement led the colleges to believe that research and degree offering went hand-in-hand and was now an expected part of the faculty’s workload.

In terms of admissions procedures and accepting transfer credits into a program, the interpretation of the PEQAB requirements was that:

you can’t bring over more than 40%, period. Which means you can’t go for two and two. So, some of our agreements with universities are better than we can give our own students and our own degree program because of PEQAB’s requirements which doesn’t seem to make a lot of sense… so PEQAB’s requirements are frustrating sometimes and it does affect our own policies because we have tried to honour what PEQAB has put forward but sometimes it just doesn’t make any sense. – [System participant I]

In terms of quality assessors, PEQAB searched for individuals with a terminal degree in the field of the proposed program, professional credentials, and relevant academic experience. The colleges interpreted the requirements to mean a university professor. The fear was that
university professors would judge the rigour and structure of a college-offered degree as though it were being offered in a university. The colleges’ argument may or may not have been justified. However, with the short timelines set for applications for the first round of the pilot program, the colleges did not have the time to challenge the requirements. So, in most cases, colleges tried to become more university-like than the universities.

Specific sections of the application created a lot of work. First of all, colleges needed to develop all four years’ worth of course outlines. The course outlines needed to be fully developed, including textbook selection and evaluation methodology, accordingly:

what has to happen with these degrees which doesn’t happen in any other program areas is that you have to have a pretty, fully developed course four years out or more than that. So, you’re talking about textbook selection and evaluation methodology and not just the learning outcomes that had to be prepared. – [System participant E]

A second part of the application that required seemingly unreasonable work was the proof of employer demand. In one college’s applications, the college provided letters from employers that stated that the employers would hire their students for co-op terms.

At least in theory, in writing, from our employers, so we had to have letters that said, we’ll have three co-op students or we’ll take five co-op students, and as you can imagine, and this was a degree that was going to be running in the future and the co-op wasn’t going to happen until the third year, so it was an interesting time to get them to commit. I mean, how many employers are going to commit that I will hire four students four years from now. I mean, it’s totally ludicrous. I wouldn’t ask anyone to make that commitment six months from now, instead of four years and that’s what we were asking people to do. So, it was a little bit unrealistic. - [System participant E]

A seasoned degree applicant commented:
How much work? It was hundreds and hundreds of hours of work and it still is hundreds and hundreds of hours of work. – [System participant E]

The organization of the Quality Assessment Panel visits was difficult and stressful. With the external assessment of the program, the college needed to arrange for assessors to come on campus to meet various stakeholders in the process. On the day of the assessment, the college (most likely the representative from the academic department) needed to organize all of the stakeholder groups together: students, past students, faculty, and administrators, and move the quality assessors quickly through to meet with each group.

Finally, the colleges felt that the degrees were not funded adequately. The Ministry added a nominal 1.025 multiple to each degree WFU, meaning that the colleges received an extra 2.5% per each WFU compared to an equivalent diploma program. If the funding for a WFU was $4000, then the college would receive $4100 instead.

Degrees are expensive for colleges to undertake in the first place, very, very expensive. And given the way the Ministry funds them, quite honestly, I don’t know why colleges do it. It’s not for any financial reasons. That’s for sure. – [System participant E]

4.4.4.3.8 Consent renewal.

The PEQAB policies required that the colleges offering degrees renew their consent for the degree program every seven years. The consent renewal process was as much work as the original program application. The renewal consisted of a self-study followed by a college-sponsored external review; depending on what the college’s self-study included, it may have meant that the college called in external assessors twice (once for the self-study and once for the PEQAB external review). The renewal consent submission required all of the program documentation that the original program proposal required. PEQAB would put together another
Quality Assessment Panel. From the colleges’ perspective, the consent renewal process also “consumed significant resources” according to one VP Academic – [System participant F].

In an external review of PEQAB processes, the evaluators found that a future conflict might occur with PEQAB processes as institutions gained more experience mounting degree programs. The thought was that portions of the consent renewal processes might be considered duplicative (Crow et al., 2011). One area that could be considered duplicative was the need for two sets of quality assessors review their programs.

Because our assessors are the same people that PEQAB’s using, we’re using university professors from universities across Canada and the United States. But because we pay them, they’re considered not arm’s-length enough. That’s what I’ve been told. But we are going to pay the expenses for the other guys. I don’t quite get that. You take that assessment fee and you double it for degrees. So… they’re expensive again. – [System participant H]

4.4.4.4 Legitimacy of the college degrees.

In the original PEQAB handbook, degrees were classified as ‘applied’ degrees24. The colleges felt that the label ‘applied’ disadvantaged their graduates. The label potentially allowed employers and other institutions to question the legitimacy of the degree.

In grade 9 and 10 students pick, academic courses or applied courses ... The applied courses are for kids who don’t have what it takes to go onto college or university ... So, you then, applied degrees, that’s a very pejorative term for those students ... It wasn’t intended that way; that’s what the high school curriculum has taught them, that applied means not very challenging. – [System participant C]

Furthermore, in the early offering of the degrees, there was within-system confusion regarding the educational pathways available to students. One college leader stated that:

24 Examples of potential names of the college degrees were ‘Bachelor’s of Applied Business in Finance’, or Bachelors of Applied Arts in Illustration
definitely it was the intention that they be applied, but I would say never was it stated anywhere that they be terminal. Even with college students wanting to go on to get Master’s degrees, that’s a minority of college graduates. We’re not talking about half of them, it’s a minority”. – [System participant C]

Another college leader stated:

But in fairness, while that [admission to a Master’s program] is a big problem, in fairness, they weren’t supposed to - their primary reason was not to be entry into graduate school, it was to get into the world of work in areas which the universities weren’t presently fulfilling. – [System participant B]

After the degrees were started, students had difficulties in getting recognition from the universities for their degree study. A number of students found it difficult to gain admissions into Master’s programs.

What we never won and still haven't won was that the universities still don't like the idea. And they're still saying they're not real degrees. And they don’t – with a few exceptions, they don’t really let our grads wholesale into the universities for graduate school. – [System participant C]

In an unpublished report by the then-president Mount Royal University, Marshall (2005) surveyed the presidents of AUCC-recognized universities in Canada. He found a number of institutions questioned the legitimacy of the college degree. A particular instance, one university’s senate passed a motion in 2004 that restricted access to its graduate and professional programs to graduates from AUCC recognized institutions (Marshall, 2005). However, a number of colleges have reported that recent graduates of college degrees have been accepted into graduate schools and law programs mostly outside of Ontario.
4.4.4.5 The college system response.

The Minister originally intended to accept a total of 24 degree programs from the Ontario colleges through two rounds of a pilot project allowing colleges to offer degrees. In the first round of the pilot project, the Minister received 22 applications in December 2001. Thirteen of those degrees were recommended to the Minister from nine different colleges in March 2002. In the second round of pilot project submissions in May 2002, 30 submissions (including six resubmissions) were made from the Ontario Colleges. PEQAB found that more than 12 programs were of the appropriate quality with minor revisions. The Minister revised the original intention to include all programs that met the Board’s criteria and standards (PEQAB, 2003a). Based on the Minister’s statement, ultimately an additional twenty-five applications were granted consent in November 2002.

In total, 38 programs from 19 of 24 different colleges received consent to offer a degree program. Figure 4.2 illustrates the number of PEQAB submissions that each college submitted as of 2011. Of the 37 approved programs, only 19 programs ever took an intake of students. Seven of the colleges were unable to launch the degrees that they gained consent for; twelve colleges ran degrees originating from the pilot program.
Data sourced from PEQAB Annual Reports from 2002-2012 and Ministry enrollment reports.

**Figure 4.2 Number of PEQAB submissions from each Ontario college, 2011.**

By 2011, there were definite indicators of each college’s approach to offering degrees.

Figure 4.3 illustrates the relationship between the size of the college and the number of degrees it offered in 2011. There was a total of 65 degrees running in the Ontario college system and 51 of those degrees were offered by colleges with ITAL status; the colleges that had intended to differentiate in 2000. Four colleges offered more than ten or more degrees, eight colleges offered four or fewer degrees and 12 colleges were no longer offering degrees and were not applying for programs.
Data sourced from (Government of Ontario, 2016) and Ministry enrollment reports.

**Figure 4.3 Number of Degrees Offered by each Ontario college, 2011.**

A list of consent granted degree programs can be found in Appendix C.

### 4.4.4.6 Summary.

With respect to degree offerings, there were three main trajectories that the colleges were following. By 2011, the ITALs, mainly the largest colleges in the system and Conestoga, were starting to offer many degrees. The mid-size colleges offered a limited number of degrees and the majority of smaller colleges did not offer any degrees. There was a definite indication that some colleges were trying to differentiate with respect to the rest of the system using the ability to offer degree programs.

### 4.4.5 Applied research.

The College Charter added one line that included applied research as a possible activity that colleges could undertake. This statement was the first direction from the government for colleges to engage in research. For the colleges and the public, ‘applied research’ was not a
readily definable term. The means of doing research had not been properly defined for the colleges, nor had the objectives of engaging in applied research. There was limited communication of the interpretation of that line in the College Charter from the government to the college system.

Prior to the legislative changes, the colleges had not formally engaged in research and did not have the formal internal structures to work in a research paradigm. The majority of faculty and administration in the college system had not been trained to do research through their previous education. Applied research was entirely new to the Ontario college environment.

The definitions of research had been entirely formed by university structure, and embedded into funding agencies. At the time of the charter, the colleges’ activities and specializations did not venture into that research paradigm.

The new College Charter allowed the Ontario colleges to take part in applied research. ACAATO (2004) felt that through applied research the colleges could augment the economy by developing, prototyping, and commercializing products for small-to-medium-sized enterprises that could not afford their own research and development operations. Applied research would have a two-fold effect: colleges could strengthen their relationships with local industry, and students could get experience solving real problems faced by industry.

4.4.5.1 Purposes for doing research.

The messages about the purposes of research in the college from the public and the government were at times conflicting and led in different directions. Based on the data collected for this thesis, some of the reasons to do research were:

1) fulfilling PEQAB faculty requirements;

2) learning for the students;
3) augmenting economic development;
4) raising prestige; and
5) increasing revenues.

4.4.5.1.1 Fulfilling the mandate of offering degrees.

By 2002, PEQAB had already been established and almost all colleges had already applied to offer a degree program. By submitting an application for a degree, colleges at least implicitly accepted or understood that research was necessary to support degree programming. In support of that view, several college administrators indicated that degree granting and research went hand-in-hand, promoting a university-type of paradigm regarding learning at the degree level.

When an area is involved with a degree, there’s an obligation to be involved in research at some level. – [System participant E]

The first is, moving into degree-granting brings some responsibility to do research, if you’re going to be doing that. – [System participant C]

4.4.5.1.2 Learning for the students.

Another reason for doing research involved the learning potential for students. All college administrators included the direct benefit of students doing research as criteria in engaging in research.

So certainly, there is an acknowledgement that research is going to be a much more important part of our programming going forward and it’s going to help support and strengthen student learning. – [System participant E]

Normally we don't do a research project if there's no prof involved. We don't want to do research if there's no students involved. We're not going to do research, applied research, if there's no industry partner involved. – [Niagara employee F]
Linking the students with business and industry in the community. That’s great for the students, it really drives home the applied nature of their learning, makes them see that what they’re learning is relevant. – [System participant C]

4.4.5.1.3 Augmenting economic development.

Colleges were part of the local community and geared to serving the interests of their local industry base. To that end, applied research could be seen as an extension of the previous college mandate to supply skilled labour for local industry. Students, with faculty oversight, could possibly get a chance to innovate new products and help the local industry.

We’re here really for the economic success of the community through the provision of skilled labour. Anything we can do… in the provision of that skilled labour, in educating those students, that furthers the economy of the region, is a plus for everybody. But secondly, if it can promote the economic success of those businesses and industries, that’s a win for everybody, and of course applied research fits into that if it’s integrated into the curriculum of the programming. – [Niagara employee D]

4.4.5.1.4 Raising prestige.

Research offered a pathway to build prestige in the form of marketable outputs to attract further government funding, support from the private sector, and new students. Prestige can attract students, and students can attract fundraising and support from the private sector. When speaking of ‘Research Day’, an applied research event that attracted local media and the local Member of Parliament, one participant stated:

It was amazing. That recognition is there. And it’s huge. The visibility for the college obviously is great. In the long run, hopefully they will attract more students … More faculty … Build more momentum in certain areas … So, it’s great. It raises the prestige of the institution. It just has so much going for it that we’ve made it one of our big strategic directions. – [Lambton employee C]
4.4.5.1.5 Increasing revenues.

Finally, the timing of the new capability came at a time where colleges were looking to diversify their revenue streams. Through their annual business plans, some colleges referred to applied research as a way to diversify their revenue streams.

4.4.5.2 Faculty issues.

Colleges have had a learning curve throughout the entire applied research process. Explaining the challenges that a college faced, one administrator described the strings of challenges the college faced with “challenges to get grants and then challenges to administer them when we get them and challenges to do the research when we get them and then challenges to find the partners” – [System participant C].

The colleges also faced some challenges in terms of arranging faculty time for applied research. Colleges, in the past, have been primarily teaching institutions. Many of those who work at the college chose to do so to focus on teaching as opposed to doing research.

With respect to full-time faculty, applied research is considered an auxiliary function of a faculty member’s workload. The workload for each semester of a unionized faculty member is recorded on a standard workload form (SWF). In total, faculty members can work up to 44 hours per week and their schedules are determined in semester long (four-month) durations. The only way to get a full-time faculty member away from teaching duties is to fund the release time either within the department or from some external source. Academic departments are not funded to support research. External sources can be either the private sector or research granting agencies. Full private sector funding is not a common practice in Ontario. For research granting agencies, faculty members have faced challenges in preparing grant applications because of the amount of unfunded time it takes to fill out an application and the expertise necessary to fulfill
the granting agency’s various criteria. Within the college system, in 2011, there was limited expertise dealing with research granting agencies.

The overwhelming majority of our faculty either don’t know how to do it, wouldn’t think of doing it, but if provided help and shown how and stimulated, will. So, we had to create a department… we’ve got several people in it, help them with what kind of research grants are available, how do you make an application for a research grant. – [System participant C]

Research grant applications were made even more difficult by the fact that, in 2002, faculty members at the colleges had a wide range of credentials. The typical faculty credential was not the Ph.D. and had limited exposure to the research grant application process.

A component of faculty/student timing underscored another challenge in getting research started at the colleges. If students are to be involved in the project, then the project would have to work in the timeline available to the student that is attending class as well. This restricts the scope and flexibility of the research. Students are usually in class from September to April. This means that projects as part of course work would have to fit into that academic year; ideally starting in September or January and with a completion by the end of April. This creates an issue where research competes with classwork for the student’s time. In terms of project outside of the academic year, spanning over the May-August period, full-time faculty members generally have their vacation periods for nine weeks in that period; faculty would have to forego their vacation or the college would have to additionally compensate the faculty member for their activity over the vacation period.

4.4.5.3 Funding sources.

In 1997, the federal government created the Canadian Foundation for Innovation (CFI) grants that were earmarked for post-secondary institutions to contribute to economic
development. This grant program was one to include the colleges as eligible. The foundation was mandated to fund research infrastructure around institutional research strengths, including the colleges’. The federal fund required a 60% contribution from provincial or private sources. In 1999, Ontario created the Ontario Innovation Trust (OIT) grants designed to match the CFI grants, thereby leaving 20% of funding from private sources. Over the period of 2002-2004, seven colleges received infrastructure funds from the CFI/OIT program (Canadian Foundation for Innovation, 2012). A further eight colleges received funding from only the OIT program.

In 2002, Ontario colleges did not have the policies and structures in place to attract funding to federal research granting agencies. Colleges needed to develop policies and structures that addressed intellectual property, and the ethics review mechanisms for research involving human subjects. They also did not have a history of completed research work. Over the next couple of years, the colleges worked towards developing the requisite systems to be able to apply for the federal funding.

In 2004, the Natural Sciences and Engineering Research Council (NSERC), a federal research granting agency that mainly funded university-based research, created a pilot program called the College and Community Innovation program. The purpose of the pilot program was to create a program “specifically designed to support and encourage the special advantages and strengths of the colleges”. The pilot was aimed at gaining feedback on the type of applications that would enable the colleges to compete fairly for resources.

In 2006, Niagara College was the only Ontario college, among six colleges nationally25, to receive funding from the pilot program. The grant provided people and equipment for

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25 The other colleges that received funding in the pilot project were BCIT in British Columbia, Olds College in Alberta, Red River College in Manitoba, CÉGEP Lévis-Lauzon in Québec, and Nova Scotia Community College in Nova Scotia
conducting applied research and development. The grant was able to increase the availability of researching faculty by funding teaching release. Colleges in the pilot program identified several issues with completing research in the college environment. The colleges identified that they needed to invest in administrative support to find new business partners, to report back to NSERC on progress, and to coordinate faculty release time.

Both NSERC and CFI have placed requirements on institutions applying for their grants. The grants require that the principal investigator from the college have the appropriate qualifications and track record to carry out the research (CFI, 2008). In other words, the principal investigator must have a Ph.D. and also a history of completed research projects.

In 2011, the federal Canada Action Plan program allocated money into a program called FedDev Ontario’s Applied Research and Commercialization Initiative. The purpose of the fund was to encourage collaboration between Small and Medium Enterprises (SMEs) and post-secondary institutions for research and commercialization. The fund allowed colleges to fund student wages and release time for faculty to complete projects. Thirteen colleges applied for and received up to $750,000 in FedDev support each.

4.4.5.4 Supporting research offices.

Colleges found that they needed to create internal research offices to support research endeavours. College research efforts were not funded by the government as part of the operating budget. Colleges Ontario lobbied the government, led by Seneca College, to support research offices and to fund small SME projects. In 2006, Colleges Ontario was awarded $3.5 million through the Ontario Research and Commercialization Program to establish the College Network for Industry Innovation (CONII). CONII supported 10 colleges26 to develop capacity in terms of

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26 Algonquin, Centennial, Conestoga, Fanshawe, George Brown, Humber, Niagara, Seneca, Sheridan and St. Clair
providing funding for smaller projects and infrastructure support (Government of Ontario, 2006). In 2009, CONII received renewed funding and included 20 Ontario colleges (Colleges Ontario, 2009). In 2010, CONII became part of the Ontario Network of Excellence (ONE), a group established by the Ontario Ministry of Research and Innovation, designed to bring products to market (Colleges Ontario, 2010). By 2011, seventeen colleges had established research offices, as summarized in Table 3.1.

Colleges faced a problem of how to fund their research departments. Established college research offices tried to fund their operating costs through overhead on grants, but needed to be supplemented by the colleges’ operating budgets. NSERC and FedDev allocated funding to research overhead. However, for colleges that were starting the research process, the funds would entirely come out of the colleges’ operating budget.

Absolutely, there’s cost on this. In fact, if you worked in all the costs, initially you’re going to lose money. It’s going to cost. We need infrastructure to do it; it’s not like the university, where prof is expected to do research. No, we provide that infrastructure to do it and then, to manage and run the project. It’s not easy. We’re having challenges all along; there's often nothing for the office of research overhead. Who has to pay my salary, project manager's salary, the grant writer's salary? – [System participant H]

4.4.5.5 Summary.

The inclusion of applied research into college system thinking was formally introduced in the 2002 legislation. The organizational structure necessary to support research was unknown to the colleges and they needed to build institutional capacity. Those colleges interested in research needed to develop policy and establish research offices. In 2006, the Ontario colleges received provincial funding to establish CONII to support smaller research projects and start research offices. In 2006, NSERC started a pilot program directed at the Canadian colleges. By 2009,
there was a full NSERC competition for the colleges. However, by January 2011, 14 of 24 colleges had research office websites and 17 of 24 colleges mentioned performing applied research in their strategic plans. The activity of research became a point of differentiation between colleges in the system.

4.4.6 Differentiation.

Colleges were already differentiated with regards to the areas of specialization that they offered. However, the new legislation gave colleges a number of tools to further differentiate themselves from other colleges in Ontario, namely the ability to offer degrees and to do applied research.

4.4.6.1 ITAL status.

As part of the 2002 Charter, five colleges were given the ability to offer up to 15% of their programming in degrees. In 2006, at least two other colleges applied for the same status. However, the response from the Ministry was not positive. One college leader conveyed an entertaining story about his quest to get ITAL status:

We were starting to bump up against the limit of applied degree programmes we could offer without the designation. So eventually we just submitted a letter and said, we’re applying for the differentiated status, and by the way, we don’t even want the name ITAL, so you don’t need to give us that.

They didn’t know what to do, because they were afraid if they granted that to us, then they would have everybody else lined up and how could they say no? What could they do?

They came out with this amazing solution that is a step forward, but really unsatisfying for us. The rule has to do with the percentage of programs you have
that can be degree programs. We eventually got a letter back that said, actually, you don’t need this status, because you only have a much smaller percentage.

We contacted them and said, what are you talking about? We’ve done the arithmetic; we can calculate percent – we’re up against the limit – how can you claim it’s a much lower percentage and we’ve got lots more room? We asked, let’s see the list of our programs that you’re calculating this percentage against. They sent this list back that had some sixty programs on it that were defunct and had been defunct for decades. They said, well, there. – [System participant C]

As seen in the degree activity analysis earlier in the chapter, four of the five colleges that received ITAL status were offering more than ten degree programs each as opposed to non-ITAL colleges offered which were offering at most four degree programs. The four ITAL colleges, with more than ten degrees, had plans to offer many degrees originating from the 2000 call for differentiation and subsequently made good on that intention over the next ten years. The ITAL colleges used the status as a form of within-system differentiation. All five of the ITAL colleges subsequently joined an organization called Polytechnics Canada which intended to further differentiate their colleges from other colleges in the system.

4.4.6.2 Polytechnics Canada.

Polytechnics Canada is “a national alliance of Canada’s leading research-intensive publicly-funded colleges and institutes of technology” (Polytechnics Canada, 2012). Currently consisting of nine colleges across Canada, six of which are from Ontario27, Polytechnics Canada defines polytechnic education as:

committing to a wide range of credentials, including bachelor degrees, diplomas, apprenticeships, certificates, post-graduate offerings, continuing education and corporate training, spanning many fields. Combining theoretical and applied

27 Conestoga ITAL, Sheridan ITAL, Humber ITAL, George Brown College, Seneca College, and Algonquin College
learning, relevant work experience, and the opportunity to participate in applied research and commercialization projects. Offering pathways that allow students to build on their credentials; and recognizing previous learning. (Polytechnics Canada, 2012)

The mandate of Polytechnics Canada was to create a new classification of institution within Canada, in effect, stratifying the post-secondary education system by differentiating polytechnics from other colleges within the system. Furthermore, to emphasize their intent on stratifying the system, Polytechnics Canada’s website stated that they:

represent one of three pillars in Canada’s post-secondary education sector, along with universities and colleges, members of Polytechnics Canada are committed to securing the prosperity of Canadians through applied education, training and research. - [Polytechnics Canada website]

The CEO of Polytechnics Canada, before taking on the role, had previously worked as an Ottawa-based Senior Government Relations Officer for Seneca College (Polytechnics Canada, 2012). The position established by Seneca was meant to lobby the government for increasing federal research dollars directed towards the colleges (Seneca College, 2006). This also was the role that Polytechnics Canada played in promoting applied research of its member institutions to federal research granting agencies, to further differentiate its members from other colleges across Canada.

4.5 Analyzing the Field: Institutional Change in the System

The research questions of this thesis are focused on identifying institutional change. In order to explore institutional change, research questions examined the components of the institutional environment: institutional actors, governance processes, and institutional logics. More explicitly, as we examine the institutional components, the question of how we identify
significant institutional change within an organization arises. As referenced in the methodology section of this thesis, the reader will observe institutional change if there is evidence of the addition or deletion of actors in the system, the introduction of new governance processes and/or boundary changes in the activities that bound the colleges’ actions.

This section of the chapter focuses on changes in the organizational field, or in other words, the system as a whole. Changes in the organizational field (i.e. the 2000 and 2002 legislative changes) can be conceptualized as an exogenously-driven shock to each of the institutions in this study that force institutions to reform the way it interacts with the environment, possibly creating new internal actors and governance structures, and thereby creating new understandings of how decisions need to be made in the new internal and external environment.

4.5.1 College system timeline.

The changes in the colleges’ environment were non-linear and, in some cases, intersecting. Table 4.4 outlines the relevant events that triggered change in the college system.

Table 4.4

College Historical Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1965</td>
<td>Beginning of the CAAT system</td>
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<tr>
<td>1984</td>
<td>First faculty strike; CoR becomes integrated with Ministry, more labour, HR focused</td>
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<tr>
<td>1990</td>
<td>Vision 2000</td>
</tr>
<tr>
<td>1996</td>
<td>Large Provincial and Federal funding cuts, start to diversify revenue streams</td>
</tr>
<tr>
<td>1999</td>
<td>calls for new charter, KPI funding, SuperBuild, University-College Partnerships</td>
</tr>
<tr>
<td>2000</td>
<td>Post-secondary Education Choice and Excellence Act, calls for pilot degrees</td>
</tr>
<tr>
<td>2001</td>
<td>Calls for differentiated status</td>
</tr>
</tbody>
</table>
The period between 2002 and 2012 was a learning period for the colleges. They were learning how to diversify revenue which affected their marketing, international student recruitment, alumni outreach, and partnership creation. Some colleges were figuring out whether degree programming was a fit for their local environments. Finally, they were experimenting with models of how to incorporate research into an institution that was not initially designed for performing research. The colleges experimented with a number of activities to determine what worked and what did not. However, in many cases the timelines to submit applications or respond to calls from the Ministry were short and did not allow for the colleges to plan strategically on whether it was an activity that fit their mission and values. The short timelines forced the colleges to have internally localized immediate responses for new activities.
4.5.2 The college organizational field pre- and post-legislation.

Pre-legislation, the colleges existed in a simpler operational environment. However, most of the final operational decision-making was concentrated at the Council of Regents and the Ministry, as shown in Figure 4.4. At the time, 70% of the funding came from government sources and 16% came from tuition (refer to Table 4.2). Prior to 1996, there was little need for the colleges to reach outside the confines of the provincial government to generate revenue. There was little need for the colleges to establish relationships with industry at an institutional level. With little competition for students, there was little need to innovate programming and create educational partnerships through pathways, or university degree offerings. Some colleges had started recruiting international students, creating graduate certificate programs, developing university partnerships, and reaching out to industry. However, those activities were not an essential part of the college operations at the time.

Furthermore, the colleges had little control over their finances. A majority of their revenue came directly from the government, and a majority of their expenses were negotiated by the government, giving the colleges little financial flexibility to take risks. In terms of

Figure 4.4 Pre-legislation Accountability structures
programming, the colleges submitted new program proposals to the Ministry for curriculum and funding approval. Also, program review, a quality assurance mechanism, was the responsibility of the Council of Regents. At the college level, the only responsibility left to the presidents and board chairs was to advocate to the public and the government for the interests of the colleges.

With the funding cuts in 1996, the government forced the colleges to be more self-reliant. The provincial government began to cut its direct operating grant support of colleges to place a larger burden on the private sector, including the students through tuition increases. The colleges also started to look to new markets and services to augment its revenue streams.

After the legislative changes, the operational decision-making shifted to the colleges. Figure 4.5 shows where final decision-making power lay after the legislative changes. Decision-making at the system-level was distributed throughout the system. Responsibility for operating the college system shifted down from Ministry to the college presidents and boards. Financially, the colleges faced pressure to find new revenue sources and cut costs.
Accountability mechanisms shifted to more self-regulative mechanisms. The quality assurance mechanisms were now under the umbrella of Colleges Ontario and the direct responsibility of each college’s board. The movement of the quality assurance mechanisms was a profound shift of power dynamics between the colleges and the government.

The legislation also created two additional governance mechanisms for the colleges to follow. Degree granting explicitly added a new approval process through PEQAB which placed the body in a hierarchy over the colleges. Applied research implicitly added the federal research funders as eventually new bodies for the colleges to deal with. The College Collective Bargaining Act, 2008 gave the colleges more control over their balance sheet by being directly responsible for the collective bargaining process.
4.5.3 Pre- and post- legislation primary and supporting activities.

Michael Cooke (2007) used Porter’s Value chain to explain the activities that an organization engages in to transform inputs into outputs for consumption. As explained in Cooke, Porter (1985) divided an organization’s activities into primary and supporting activities. Figure 4.6 (on the next page) shows the primary and supporting activities of the Ontario Colleges before and after the legislative changes in 2000 and 2002. Primary activities are the processes used by an organization to achieve its primary goals. In the case of the Ontario colleges, the primary activities come in the form of academic programming to produce graduates for industry. In the academic stream, colleges need to develop programs, recruit students, offer programs, and link students to industry. The primary activities form the core of the organization’s mandate. In terms of primary activities, post-legislation, colleges intensified their graduate certificates and one-year certificates offerings, and added a new programming type, namely degree programs.

The supporting activities are processes that enable the organization to fulfill its mandate outside of the primary activities. Pre-legislation, the supporting activities of the colleges were general organizational needs around human resources, information technology, finance, and marketing. Post-legislation, the colleges not only introduced a number of supporting activities, such as applied research but also intensified the importance and expanded the scope of the existing supporting activities.
Figure 4.6 Primary and supporting activities in the Ontario Colleges pre- and post-legislative changes
Overall, the colleges became less reliant on the government for decision-making and funding, and felt more responsible for their own long-term financial sustainability. The colleges found a new revenue stream in applied research, and grew their activities in international student recruitment. In terms of accountability, the board at each college gained the responsibility of oversight of the colleges’ operations. College presidents needed to build in systems to gain better information for decision-making regarding the colleges’ programming and finances to satisfy their respective boards. As a result of this shift in ownership, colleges upgraded their information technology systems, and created institutional research departments.

In terms of infrastructure, long-term financial accountability moved into the purview of the colleges’ boards. Post-legislation, the goal of each college changed from breaking even each year, to building budgets that allowed for renewal. Facilities departments have become more accountable to delivering projects on-budget and being more responsive to the needs of the primary activities. Information technology services have been pushed to offer more user-friendly services and also to build systems that allowed the colleges to harvest information more easily for various stakeholders within the college. Marketing and communications have grown in complexity and has become necessary for the college’s success. Prior to the legislative changes, the main marketing requirements were to the high school students. However, marketing and communications in the post-legislative environment is more to the general public, and targeted to specific external stakeholders like research funders and industry partners. Program development and review processes have become centralized and have moved onto the priority lists of academic departments. Institutional research departments have started to play a large role in maintaining the colleges’ accountability requirements at the board and the ministry. Finally, all
of these facets in turn assist the colleges with their new required focus of creating new revenue streams and to maintain a balanced budget.

Beyond the intensification of the existing support activities, colleges have engaged in a number of revenue generating activities. Many colleges have introduced applied research, fundraising, and large international student recruitment and services teams.

As the activities that the colleges engaged in changed, so did the interaction with the organizational field. The set of new primary and supporting activities introduced new stakeholders into the college and hence, new governance structures.

4.5.4 Institutional change using the theoretical frame.

At the organizational-field level, the Ontario college system was reconstructed. The funding cuts in 1996 introduced a new paradigm of financial management for the colleges. The legislative changes introduced new activities and restructured the accountability mechanisms, further reinforcing the paradigm. In response to the research questions posed in this thesis, the following section views the college organizational field from two theoretical perspectives: the material-resource and institutional environments for the colleges.

4.5.4.1 Material-resource environment.

The literature review characterized the material-resource environment as having three components: demand for services, supply of services, and technology to offer those services. Certain conditions within those three components establish an external operating environment for organizations and define how an organization interacts with the market. Basic economics textbooks outline the conditions within those components for monopolies, oligopolies, or perfect competition marketplaces to exist. However, the Ontario colleges operated in a non-traditional
marketplace. Cooke (2007) examined the marketplace that the Ontario colleges operated in and argued that the colleges’ environment could not be modeled after the traditional market-based approaches. Cooke (2007), which examined the time period between 1995 and 2005, found that a number of assumptions did not entirely describe the situation of the Ontario college system. Cooke found that these traditional market-based models were of limited relevance because the colleges existed within a highly regulative environment controlled by the government, the colleges were geographically separated which created low market diversity, and the colleges were designed to respond to societal need and not to make a profit. Cooke identified that the colleges could be considered as operating as a monopsony, in a market where there are many sellers and only one buyer, namely the government. The government in this case can be considered the only buyer because it had the power to set the operating grant and also determine the maximum tuition for a program.

In this scenario, the colleges are at the mercy of the government, yet are responsible for themselves as institutions. The uncertainty involved with being in a monopsony requires the colleges to respond to the government yet plan in case there ever was a drastic cut to funding in the form of tuition freezes or a cut to the operating grant. In fact, the colleges experienced part of their worst-case scenario in 1996 when both levels of government indeed drastically cut their funding.

The legislative changes of 2002 gave the colleges the tools needed to survive in this new environment. Since then, the colleges have tried to shift their dependence on the government, diversifying their revenue streams and becoming more financially resilient. As a result, there have been a number of additions of institutional actors. In some cases, the competing interests or
requirements of the actors have introduced new processes for decision-making and introduced new institutional logics into the system.

On the demand-side for the colleges’ services, the colleges looked to augment the demand of their services by expanding the types of services they offered. The legislation opened prescribed and un-prescribed avenues for revenue generation. The prescribed avenues introduced by the legislation were degree programs and research grants. The legislation also allowed the colleges to derive revenue from outside its legislated primary activity. The un-prescribed avenues included diversifying program mix, attracting international students, the allowance of subsidiaries, and fundraising.

On the supply-side of the college services, the colleges were initially located such that they would not have to compete for students or industry to service. Until the late 1990s, the colleges were not able to market their programs outside of their particular catchment area, nor were they able to build residences to provide accommodation to students from outside their area. Although the colleges are now able to recruit students from other catchments, the colleges arguably still have a virtually monopoly on their local area.

The technologies used to offer the colleges’ services have not changed drastically over the period of the study. Colleges rely on faculty to deliver curriculum and provide a hands-on learning environment. Colleges still have libraries, student services, and information technology infrastructures to support the learning environment. There have been minor technological disruptions in terms of learning technology, the use of library facilities, and online learning, but a vast majority of college’s services still rely on the classroom.

However, the operationalization of applied research may have posed a disruption to the college’s technology. For effective servicing of applied research, the college needed to offer
dedicated spaces for research, establish offices to handle grant applications and administration, and figure out ways for applied research to co-exist with faculty’s collective agreement.

4.5.4.2 Institutional actors.

The legislation, both formally and informally, deleted and added actors in the system; it made alterations to the power dynamics within the Ontario college system. The most significant formal deletion from the system was the Council of Regents, altering many of the existing power relationships between the colleges and the Ministry. In terms of the addition of institutional actors, from the perspective of individual colleges, some new institutional actors were part of the system and mandatory to interact with, some actors were part of the system, but optional to interact with; and yet another set of actors were introductions into the institutional landscape specific to an individual institution.

The actors that were mandatory to interact with were within the realm of accountability. Financial accountability and program accountability were shifted to each colleges’ local board with oversight from Colleges Ontario. Colleges Ontario’s board consisted of the president and the board chair of each of the colleges; 24 colleges, hence 48 board members. Colleges Ontario represented the administrative interests of the colleges. The organization of Colleges Ontario, or ACAATO, evolved from a secretariat, to an advocacy group, to being responsible for accountability mechanisms in the system.

Under the umbrella of Colleges Ontario was the Ontario College Quality Assurance Service (OCQAS), which subdivided its tasks into the Credential Validation Service (CVS) and the Program Quality Assurance Process Audit (PQAPA). The relationship between each college and CVS and PQAPA became more collaborative. As evidenced by the feedback that
respondents gave in section 4.4.3, colleges found the value in the processes developed by each sub-institution with respect to their own institutions.

The system actors that were part of the mandate but who were optional to interact with were PEQAB and the research funders. Interaction with these two bodies was the main contributor to a differentiated system. The Postsecondary Education Choice and Excellence Act, 2000 added PEQAB into the system landscape. Colleges wanting to pursue degree offering would be highly affected institutionally by the requirements posed by PEQAB.

In terms of applied research, the colleges pursued funding from the major granters of research funding in Canada, namely NSERC, and SSHRC. In order to receive funding from one of the three major federal funding bodies, the colleges needed to make a research infrastructure to be considered for funding, creating applications, and administering grants received.

The actors that were specific to individual institutions exhibited themselves in the form of partnerships. In addition to the formal addition of actors into the system, there were a number of informal additions because of the paradigm shift to attract new revenue streams into the college. Colleges created partnerships with universities to create degree completion pathways, connections to industry to support applied research or work-integrated learning opportunities, and international links to recruit students or collaborate with international educational institutions. Colleges also had to add internal infrastructure to support each of those new or expanded activities.

4.5.4.3 Governance.

The governance mechanisms are the expressions of power that materialize as structures and processes that provide oversight and enforce compliance (Scott et al., 2000). The governance mechanisms that exist in the organizational-field shape the processes at the organizational level.
The legislations of 2000 and 2002 marked significant changes in the governance mechanisms in the organizational-field. These changes marked a significant paradigm shift in the colleges’ operations. In the pre-legislation era, many of the decisions at the college needed approval from the Council of Regents or the Ministry. In contrast, post-legislation, financial and program accountability was pushed down to the local boards of the colleges. The system changed from a state-controlled model to a self-regulative model. The question is why. What kind of behaviour did a self-regulative model reward or constrict versus a state-controlled model?

The changes in accountability structures created a profound psychological change for the colleges. The colleges had a number of concerns under the scrutiny of the Council of Regents and the Ministry (Hook, 2004). The processes from the Council of Regents and Ministry obstructed the will of the colleges, and enforced a psychological relationship in which it was understood that the Ministry could make better decisions than the colleges. Colleges felt they were caught by surprise when announcements, policy, or negative decisions were made by the government (Government of Ontario, 1994). In addition, colleges outside the GTA did not think that the Toronto-based Council of Regents understood their local contextual issues [System Participant C], and hence could not justifiably make decisions for the college. Psychologically, colleges developed an external locus of control (Rotter, 1966). In extreme cases of external locus of control, people do not believe that their decisions or behaviour affect the outcomes of a process.

Weigold and Schlenker (1991) wrote about the psychology of outcomes-based versus process-based accountability structures. Between those types of structures, the question of justification comes into play, specifically what needs to be justified: the outcomes or the process? The Council of Regents and the Ministry administered an outcomes-based approval
process. Outcomes-based accountability structures tend to create an environment in which organizations need to provide justification for their requests or applications, this was especially so for the colleges when the requests were not directly asked for by the Ministry.

In the case of the colleges, the legislation redistributed the power between the colleges and the government, giving the colleges more procedural autonomy. The colleges received more control over the micro-decisions in the finance and program operations of the college, while being held directly accountable for its overall wellbeing, programs, and services. As a result of the newfound autonomy, the college needed to increase its internal decision-making capacity. As the college wanted to make a decision, the college leadership needed to justify to its own board that the decision was correct, and demonstrate its decision-making process, thereby applying a form of process-based accountability. Process-based accountability structures presuppose that the outcome is desirable and is justified because the process creates the justification (Weigold & Schlenker, 1991). The local vetting of decisions shifted the locus of control internally, giving the colleges a feeling that they controlled their outcomes.

In contrast to the colleges’ newfound autonomy with respect to operations, the government introduced the Postsecondary Education Quality Assessment Board (PEQAB) as a Ministry proxy. At the system-level, with respect to degree-granting activity, colleges were placed into a relationship akin to the relationship with the defunct Council of Regents. As mentioned earlier in the chapter regarding issues with the PEQAB process, although there was an understanding that PEQAB’s role had value for the post-secondary environment in Ontario, colleges felt unfairly judged by the process. Even more so, the PEQAB process made the colleges feel inferior to the universities. There were questions on the politicization of the process. Some colleges leaders questioned why the Minister had the final determination of what programs
a college could run [System Participant C, I]. By 2011, the colleges that had gained significant experience developing and offering degrees questioned the need for the PEQAB process given that they had already proven that they could do it themselves consistently.

The PEQAB application and consent renewal processes were demanding and complicated. The criteria imposed by PEQAB had the potential to ripple through the college and change the overall system. Colleges that chose to engage in significant degree activity would need to handle the workload generated by the processes, as well as the costs to the institution. There was also a possibility that these colleges would need to change their overall hiring practices for faculty (Laden, 2005).

In 2002, the possibility of applied research was added for the colleges. At the time, the colleges did not have the policies and structures to support applied research, nor did federal research granting agencies have programs that responded to the colleges. The colleges which wanted to access funding worked with the funding agencies to establish programs that would be successful in the colleges. The creation of the grants aimed at the colleges could be considered an alteration of the material-resource environment. The colleges, too, needed to adapt their operations to accommodate the criteria for the grant applications by creating positions regarding grant writing and administration.

### 4.5.4.4 Institutional logics.

Institutional logics are relics of institutional history, but also are an expression of the governance structures and institutional actors within the institutional environment. The changing resource-material environment and the legislation exposed the colleges to a new set of institutional actors and governance processes. The new governance structures and institutional actors at the system-level introduced a number of secondary logics into the system that
complemented or conflicted with the pre-existing modes of operating. Post-legislation, the new secondary logics to the system could be grouped under two main categories: increased accountability and differentiation.

4.5.4.4.1 Accountability.

The institutional logic of financial and program accountability becoming the responsibility of the local college board had many implications. Many colleges found a dearth of information for informed decision-making. With the financial accountability, colleges needed to evaluate whether they were getting value for money in their spending. In order to get more information, institutional research positions were developed throughout the system [System participant C, F]. Decisions were becoming more data-driven.

The fallout of the 1996 funding cuts, in combination with the new operational autonomy, left colleges keen to find ways to reduce their cost structures and to develop new revenue streams. Some colleges developed fundraising teams. Some colleges increased their international recruitment efforts. Some colleges changed their program mix to reach potential student markets they did not reach before. Most colleges did some combination of all three. Each of those activities introduced new actors into the college, which consequently started conversations internally about how to accomplish the new activities. In addition to the activities, there was the new understanding that all activities needed to at the very least pay for themselves (Quinlan, 1997; Sir Sandford Fleming College, 1996).

The new program development and program quality assurance mechanisms shifted the understandings of ownership of the processes from the Ministry to the colleges through Colleges Ontario. The PQAPA process of auditing each colleges’ quality assurance mechanisms, in effect,
pushed the colleges to create their own internal accountability structures and ensured that program quality was built into every program’s cycle.

Each new activity introduced new actors into the system. Each of the actors came with their own self-interest, and introduced new conversations or variables into the decision-making process. The new variables challenged the primary existing institutional logics of the particular college. In terms of the logics deriving from financial and program accountability, these logics have affected all colleges in the system to some extent, creating many secondary logics in terms of making decisions. The secondary logics introduced into the system were either complimentary or conflicting to the existing logics of the college.

4.5.4.4.1 Differentiation.

The second category of competing secondary logic is differentiation through higher-level academic programming. These logics introduced the ideas of four-year degrees and research, and intensified the idea of within-system differentiation. The government started a process to formalize the idea of within-system differentiation by requesting proposals for differentiation from the colleges. Five colleges applied to have ITAL status to offer a greater percentage of their programming offered as degrees. Further, Polytechnics Canada created an association of certain colleges that lobbied the government to view their organizations differently from other organizations, especially in comparison to other organizations with their legislated mandate (i.e. the other colleges).

The development of degree programming directly competed with the access mandate and diploma programming. Laden (2005) thought that the resources dedicated to the degrees were going there at the expense of diploma program development.
Seventeen colleges placed applied research in their strategic plans. An overlapping, but different set of seventeen colleges had opened dedicated research offices. Twenty Ontario colleges joined CONII\textsuperscript{28}. Within the individual colleges, not all colleges introduced focused institutional thinking and resources around applied research. As evidenced by the lack of membership in CONII and strategic objective for the colleges, applied research was not part of the institutional conversation for several colleges in 2011. The logics at those colleges had not appreciably changed with respect to applied research. The colleges that had not established new conversations about applied research were amongst the smaller colleges in the system and as a side note, were the among the ones which did not accept an invitation to participate in this study.

Degrees and research both influenced the credential of the faculty being hired at the college. For faculty that were hired to teach in the degree subject areas or those associated with research, the preferred credential changed from the bachelor degree or three-year diploma to a Ph.D. or a Masters at a minimum.

In terms of system differentiation, degree programming and applied research introduced competing logics to the system. Not all colleges decided to pursue applied research, nor did all colleges decide to offer degree programs. Both activities required significant start-up costs and infrastructure due to the governing bodies. These activities were seen as programming associated with the universities violating the mandate to serve students that were unable to attend a university (Government of Ontario, 1967).

A number of logics were introduced into the system as a result of the legislative changes. Questions still remain regarding the pervasiveness of the logics. Did the new institutional logics affect each college? In colleges that were affected, were the effects of the logics across the entire

\textsuperscript{28} Refer to the case selection section of chapter 3 for the listing of colleges in each category.
college or localized within specific departments? These questions will be examined in the next chapter looking at the case studies of Seneca College, Niagara College, and Lambton College.

4.6 Chapter Summary

As quoted in the opening of this chapter, Robert Gordon, a former president of Humber College, stated that the period between 2000 and 2004 will be seen as the most dynamic period of formal change for the colleges since the legislation in 1965. The precursor to the changes was a dramatic funding shift from public support to private support and calls for differentiation within the system. The formal changes in legislation marked changes in the formal operating environment for the entire college system. Correspondingly, the following period between 2002 and 2012, could be seen as a great period of organizational transition where some colleges recrafted their identities.

Some colleges chose paths of differentiation from the rest of the system by engaging in higher level activities in the form of degree programming and applied research. Both of those activities introduced new external actors to the system that required the effected colleges to adjust their internal logics, actors and governance structures in response. Other colleges did not this path of differentiation and did not fully pursue the new activities.

The legislation also brought a turn of era in the accountability paradigm governing the colleges. The operationalization of financial and program quality overview shifted from the government to the local governing boards. This shift in overview was accompanied by increased reporting requirements from the colleges to the public. Local governing boards also demanded that their colleges provide more data and create more structured processes to make informed decisions.
Chapter 5: Three Ontario Colleges: An Organizational-Level Perspective

The legislative changes introduced in 2000 and 2002 made significant changes to the Ontario college system, including an introduction of new external institutional actors, governance mechanisms, and activities, all of which led to significant changes in the institutional logics that guide how the colleges make decisions into what they do and how they do it. This chapter is the case study of three colleges in the system: Seneca College, Lambton College, and Niagara College.

These colleges were chosen with the belief that they represented different trajectories of differentiation within the system with respect to the legislative changes. As outlined in the methodology chapter, all of the colleges in the Ontario system were categorized in terms of research intention and number of degrees in June of 2011. Seneca College exhibited research intention and offered more than 10 degrees. Niagara College exhibited research intention and had a limited number of degree offerings. Lambton was chosen because it appeared not to have research intention and offered no degree programs. In the case selection phase of the study, both Niagara College and Seneca College were the first colleges in their respective categories that I contacted to participate in the study. In Lambton’s category, three other colleges were contacted before Lambton, but the leadership at these colleges felt that they did not have the resources to support a study of their respective colleges.

The previous chapter outlined the system-level changes and provided an analysis of the research questions with respect to the organizational field. The intention of this chapter is to provide in-depth analysis of the three participating colleges and their responses to the changes in the legislation and their new operational autonomy. The aim of the chapter is to gain a better
understanding of the institutional actors, governance mechanisms, and guiding principles that each college used to make decisions over the period of 2002 – 2012.

5.1 Seneca College

Seneca College was established in 1967 under the Ontario Colleges of Applied Arts and Technology Act, 1965. The college’s catchment area was defined to be the northern part of Toronto extending into York Region. Seneca’s original campus was a small leased building in North York hosting 20 programs and 850 students.

Today, Seneca has four main campuses and many satellite campuses. Its historical catchment area is geographically large and, over the last two-to-three decades, has been one of the fastest growing areas in North America. Seneca College, as a result, was the largest college in the Ontario college system.

Seneca’s program diversity is somewhat reflective of Toronto’s industrial diversity. Seneca has a comprehensive set of programs in business, engineering, health sciences, media, applied arts, and hospitality. Seneca’s size and location allow it to support a set of programs that are industry-diverse without a specific specialization or focus in its college-wide programming. It has some unique programs to the system, such as aviation, underwater skills, and veterinarian programs. Seneca also has a unique partnership with York University.

Seneca was the largest Ontario college in terms of full-time equivalent enrollment. As a result, it is able to do things that other colleges cannot do because of its size. Being the largest college in the system, Seneca has the resources to influence the overall direction of the college system which gives it a level of political importance.
5.1.1 Seneca’s focus over the study period.

Seneca’s leadership felt that one of the more important aspects of its role in the community was to provide postsecondary options for students, emphasizing a diversity of program offerings in terms of specialization and credentials. “Students should have choice; it was a fundamental premise of everything that we were doing” – [Seneca employee B]. “We were moving with how our students are moving” – [Seneca employee F].

Seneca’s interpretation of the CAAT mission was to provide educational options and pathways for its students to and from Seneca. Seneca had a mixture of diplomas, degrees, and graduate certificates that enabled numerous pathways between credentials and institutions. Seneca worked extensively on pathways so that its students could move on to degrees, via agreements with the University of Toronto, York University, and Trent University.

Our commitment to pathways is quite a differentiator because you’ll see that it’s one of our primary goals. There is no question that commitment differentiates us.
– [Seneca employee B]

In the implementation of its mission, we will see that Seneca established degrees, a broad applied research mandate, and partnerships with universities and other institutions.

5.1.2 Senior personnel.

The president of the college changed once over the period of the study. Dr. Rick Miner became the president in 2002 and retired in 2009. Mr. David Agnew began his term on July 1st, 2009 and continued as president until the end of the study. The vice-president academic did not change over the course of the study. Ms. Cindy Hazell became the vice-president academic in August 2001 and retired in June 2012. Although there was strong continuity in the leadership at
Seneca, the change of president in 2009 did affect some of the institutional action taken and the emphases within the mission.

5.1.3 Leading into the time period.

System-wide, in 1996, there were significant cuts to the colleges. Seneca had to make many adjustments in its structure. In a report that then-president Stephen Quinlan presented at the International Conference of the Chair Academy in 1997, he outlined the challenges that arose from the cuts, as well as the processes and actions that Seneca implemented to respond to the drastic changes in funding structure (Quinlan, 1997). In response to the funding cuts, Seneca cut positions in the college: 27 administrative including two vice-president positions, 78 faculty, and 36 support staff. Some of those cuts were through natural attrition and retirement packages.

Seneca created three distinct components within the main institution that were meant to independently generate revenue: Seneca College, and two arm’s-length organizations, Seneca Foundation, and Seneca International. Seneca College was to generate revenue through traditional post-secondary activity, government contracts, and continuing education. Seneca Foundation was to conduct fundraising campaigns for faculty chairs and capital support, and to form partnerships with alumni and corporations. Seneca International was to develop international contracts and partnerships.

Seneca, in the period between 1992 and 1999, established a campus on York University’s North York campus, offering a number of programs including a number of joint programs. Institutionally, this gave Seneca exposure to dealing with university paradigms that most colleges at that time, and even now, have never had.
5.1.4 Reaction to the charter and differentiation.

In 2000, Seneca had already had ideas of differentiating from the rest of the college system.

There was the invitation from the government for differentiated status and we put forward our application for that and we were awarded differentiated status. That allowed us to have up to 15% of our programming at the degree level. It allowed us to get into applied research and it legitimized or formalized our commitment to pathways, but not just pathways out of Seneca because in our differentiation proposal we described lifelong pathways that would provide lifelong access in and out of Seneca. – [Seneca employee B]

In 2002, Seneca received ITAL status which allowed it to offer up to 15% of their programming as degrees. Those institutions had the option of using the title of ‘Institute of Technology and Advanced Learning’. Seneca received the status, but did not accept the title. The president of Seneca at the time, Dr. Rick Miner, well documented his vision for Seneca to the local Seneca community. Seneca presented a distinct Senecan approach to the changes in legislation. In an early 2002 report titled ‘Seneca: Leading the Way Again’, the president created a case for Seneca to have a differentiated status and institutional type. Without a specific accepted label for Seneca’s differentiated institutional type, the report defined a vision for a new type of institution. The new type of institution would offer certificates, diplomas, degrees, post-graduate certificates, and applied graduate degrees. In terms of naming the institution, the report was purposefully non-committal, but leaned towards a polytechnic or institute. The conduit for degree offerings was uncertain at the time as the degrees were only in a piloting phase for the college system. The options that Seneca foresaw for itself were 1) the expansion of the current PEQAB degree pilot program, 2) the development of joint degrees with existing Ontario Universities, and/or 3) the possible formation of a new private university capable of offering
The new Seneca would be involved in applied research. As a result of its new potential direction, Seneca wanted to become a national institution by increasing its presence through recruitment, advertising, partnerships, program delivery, and/or conference involvement. For students, the new Seneca would emphasize creating more entrance and exit points and try to remove the terminal nature of its traditional programming.

In terms of labelling or effectively branding the new type of institution, Seneca did not want to be confined by a label. In a way, the leadership at Seneca was looking for a new label moving away from the legislated ‘Colleges of Applied Arts and Technology’ or the ‘College’ label. According to the ‘Seneca: Leading the way Again’ report, Seneca wanted to be known just as ‘Seneca’. Inherent to some of the documentation and evidence found, Seneca may have been looking for the ‘Polytechnic’ label. However, the provincial government of the day actively did not approve of the ‘Polytechnic’ labelling for any of the Ontario colleges. The idea of branding the institution as just ‘Seneca’ was that it could have sub-brands under the same heading. The report listed examples of sub-brands being Seneca College, Seneca Institute, or Seneca University… which would allow Seneca to evolve without the need to change the brand (Miner, 2002b).

In fact, Seneca had ideas to change the system as a whole with the two new pieces of legislation as a backdrop. In another Seneca report by the president titled ‘A College in Transition – Consolidated Task Forces Report’ (Miner, 2002a), he further outlined the idea behind the new type of institution that Seneca wanted to become. At this point in time, the Post-Secondary Education Choice and Excellence Act (Government of Ontario, 2000) had opened up degree granting to the Ontario colleges through degrees in applied areas, but the overall motive of the legislation was to increase competition in Ontario degree offering with private institutions.
Since the College Charter allowed colleges to create arm’s-length subsidiaries, one of the possible ideas to expand degree offering was to have a private university subsidiary of Seneca (Miner, 2002a). The college consulted with the Ministry to explore the effect of the private university arm on its status as a publicly funded institution, and to work with the Ministry and PEQAB to understand the private institution degree-granting landscape.

In a president’s report to the board dated September 24, 2002, the senior executive team reported on a meeting with the Ministry regarding the new Seneca vision. In that meeting, the Ministry flagged the possible creation of a private university and said that the process should go through the PEQAB process. It would be imperative to show that provincial funds were not being used to create the private university. Ultimately, over the period of this study, Seneca did not submit any applications to PEQAB under the private university provisions.

Aside from Seneca’s degree granting plans, the legislation only codified some of the activities that were already happening, such as infringement into other colleges’ catchment areas:

Seneca’s reaction to the charter was the same as most of the large GTA colleges. The very obvious one is that prior to this there were very carefully mapped out catchment areas. If you wanted to offer a new program you’d send it out and everybody had to say ‘yay’ or ‘nay’ because you are encroaching on my territory. Eventually the government started to realize that as we get more and more into non-traditional delivery modes, territory becomes kind of nonsensical. – [Seneca employee B]

In terms of accountability, the shift of program development and quality assurance from the Ministry to the local board gave a hint of “being entrepreneurial, I think that it kind of changed the culture in the college system” – [Seneca employee B].
5.1.5 Budget.

Seneca was the largest college in the system through the period of the study. Entering the year 2002, Seneca had a significant accumulated surplus (net assets) and was running annual surpluses, indicating that Seneca was able to run its operations with a surplus over many years. Table 5.1 shows Seneca’s net assets, operating revenue and annual surplus from 2000 to 2012.

Table 5.1

Seneca’s Annual Financial Standing, 2000 – 2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Assets (in $)</th>
<th>Operating Revenue (in $)</th>
<th>Surplus/Deficit (in $)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>47,103,100</td>
<td>203,832,261</td>
<td>5,439,776</td>
</tr>
<tr>
<td>2004</td>
<td>48,169,014</td>
<td>224,875,252</td>
<td>9,482,414</td>
</tr>
<tr>
<td>2005</td>
<td>47,381,675</td>
<td>227,987,554</td>
<td>(1,395,939)</td>
</tr>
<tr>
<td>2006</td>
<td>56,393,580</td>
<td>237,059,397</td>
<td>7,338,034</td>
</tr>
<tr>
<td>2007</td>
<td>58,215,586</td>
<td>252,702,407</td>
<td>184,461</td>
</tr>
<tr>
<td>2008</td>
<td>62,196,583</td>
<td>264,795,395</td>
<td>2,804,355</td>
</tr>
<tr>
<td>2009</td>
<td>57,313,461</td>
<td>278,432,875</td>
<td>(4,985,736)</td>
</tr>
<tr>
<td>2010</td>
<td>81,737,393</td>
<td>301,986,440</td>
<td>21,914,446</td>
</tr>
<tr>
<td>2011</td>
<td>100,216,541</td>
<td>309,623,473</td>
<td>16,236,258</td>
</tr>
<tr>
<td>2012</td>
<td>121,540,214</td>
<td>324,538,674</td>
<td>18,305,594</td>
</tr>
</tbody>
</table>


29 In 2002-03, MTCU changed the accounting policy with respect to the accrual of employee benefits and sick leave, which had the effect of lowering the net assets of the college.
30 In 2005, MTCU changed the accounting policy with respect to the reporting of tuition revenue, which had the effect of lowering the net assets of the college.
The diversity of activities that Seneca was engaged in made it difficult to zero-in on individual activities that made a difference to the overall surplus or deficit. For the most part, Seneca had larger accumulated net assets and discretionary funds than most colleges in the province, meaning that they were able to invest money into non-essential, non-academic activities. The overall approach to budgeting at Seneca was not driven out of necessity, but as a means to implement its strategic plan. For example, in 2006, as mentioned earlier, Seneca had employed an individual based out of Ottawa to lobby the government regarding federal funding and polytechnic status (Seneca College, 2009).

In the business plans from 2004-08, each plan was organized as college initiatives: establish the Markham campus; enhance student success and retention; increase support and interventions to enhance student literacy; increase student access to success (pathways); create an integrated human resources plan; enhance capacity to align financial resources with strategic goals; undertake a college-wide quality assurance program; increase and enhance e-learning opportunities; and create centres of excellence. Over that time period, there was little documented evidence of discussion in the board minutes, annual reports, or business plans that indicated any pressing financial stressors at the board level. Nor was there any indication that Seneca wanted to grow its enrollment to stave off potential financial problems. In 2009, however, Seneca’s Board minutes indicated that the deficit would grow to $10M without any significant intervention. As a result of the money set aside for a voluntary retirement program ($3.9M) and losses in investments ($3.9M), Seneca recorded a deficit of approximately $5M. In a letter from Seneca’s president to Ontario’s Minister of Finance dated January 15th, 2009, Seneca used its 2008-09 budget deficit as evidence that the entire college system needed funding enhancements. The next year, however, Seneca showed a surplus of $21.9M. The change in
budget fortunes pointed to increased enrollment (grant and tuition dollars, an additional $24M in revenue), and some cost cutting in the administrative structure (about $4M).

In terms of diversifying revenue streams, Seneca had utilized the many avenues that had been available.

Like everybody else, we're looking for outside sources of funding whether that's contract training, continuing education programs, international education, not just international students, but international arrangements and where we could be doing contract training internationally. You're bringing people here and going there and so on and so forth. And, of course we, like everybody else, have been building our fundraising, our advancement office. – [Seneca employee F]

The senior executive structure expressed Seneca’s strategic focuses. In 2004, they had a six-vice-president structure: academic, finance and administration, human resources, resource development, international and business development, and student and enrollment services. Also, at the time, as mentioned before, Seneca had already added an associate vice-president research and innovation position. The positions that focused outwards of the college in terms of resource development, and international and business development exemplified Seneca search for funding outside of the traditional sources. In 2005, Seneca launched a $100 million over 10 years fundraising campaign (Seneca College, 2006).

The overall cost structure of Seneca was expensive. Their historical catchment is geographically large with relatively high population density (compared with other colleges). Throughout its history, Seneca had relied on smaller leased campuses scattered throughout its region. In terms of having more campuses, the overhead to run many campuses was expensive because of services needed to be duplicated. In 2011, Seneca had:

ten campuses, four main campuses, varying sizes. It’s a huge cost structure that we have to sort of deal with and it’s one that we’re actually grappling with now. It
gives us a lot bigger community to serve but at the same time it replicates cost of operation, it means we have to have additional student services offices throughout the networks of campuses we have. And also, provide a whole bunch of different other supports. So, it’s a very expensive structure to have. – [Seneca employee D]

An overall view of Seneca’s budget was that the college was built on a large cost structure. However, Seneca had found a good mix of revenue sources to ensure that its budget was in surplus. Seneca’s revenue was large enough and had enough discretionary funds built into it that Seneca was able to take risks in terms of the activities that it was doing.

5.1.6 Enrollment, program mix and international students.

In comparison to other colleges in the study, Seneca exhibited moderate growth. Seneca grew its domestic enrollment by approximately 17% over the ten-year period of the study. In 2004, Seneca had 91 funded programs and grew that number to 115 by 2011 (Government of Ontario, 2016). Seneca had a sustained focus on attracting international students originating prior to the legislative changes. Table 5.2 shows Seneca’s annual enrollment between 2003 and 2012.

<table>
<thead>
<tr>
<th>Year</th>
<th>Full-time Equivalent (FTE)</th>
<th>Domestic student enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>12,916</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>13,199</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>13,374</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>13,453</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Number</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>13,846</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>14,545</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>14,397</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>14,475</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>14,464</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>14,536</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>15,292</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>15,870</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>15,668</td>
<td></td>
</tr>
</tbody>
</table>

At Seneca, the overall program mix did not seem to be of great concern. As a matter of course, with the exception of apprenticeships in the trades, Seneca already offered all of the types of program credentials in diverse subject areas. The college was naturally programmatically diverse. As a result, from the interview data, it did not seem that there was the emphasis on getting the ‘correct’ program mix, nor was enrollment planning tied to a top-down overall program mix approach, other than with degree development. Non-degree program development was initiated by the academic departments and approved centrally.

Seneca’s enrollment growth was moderate between 2003 and 2008. The lack of significant growth may have been a conscious decision by the administration to focus on increasing the quality of programming, and pathways [Seneca employee B]. However, there was an understanding that they needed to “keep growing because if you stop, it's really going to kill you. As that's so, we wanted to control it” – [Seneca employee F]. When asked about pressures from the funding formula to introduce new programs, an administrator stated that the pressure
for new programs did not come from the funding formula, but rather from competition from within the system. – [Seneca Employee B]

Seneca had a large international student population. As with other colleges in the system, Seneca has become financially dependent on international students.

Colleges have been using international enrolment to make up for the inadequacies of public funding. It's a dangerous game if we become dependent on certain levels of international. Like everybody else, we've always been active in international education, and our international population grows. International has now become an essential part of our financial structure. And if the entire system lost its international students tomorrow, we'd all be in trouble. – [Seneca employee F]

5.1.7 Degree activity.

Upon the announcement of the degree pilot program, Seneca made two proposals in the first round of the pilot and two proposals in the second round of the pilot. Among the colleges, Seneca, along with Humber College, applied for the most degree programs. This start was indicative of the strategy that Seneca was going to undertake over the next ten years.

Being the largest college in the Ontario college system at the time, Seneca had already established strong information technology, library, and co-op infrastructures. In addition, Seneca had the financial flexibility to commit towards hiring the many additional faculty necessary to gain PEQAB approval. A senior administrator at the time said that “because we were a large comprehensive institution, from an institutional capacity point of view, we had enough critical mass that we were pretty close in terms of [reaching the degree offering requirements]” – [Seneca employee B].

During the 2002-2012 period, Seneca applied for 13 degrees; with all approved. The college took enrollment in 12 of the 13 programs, and by the end of the study period 11 of the
programs were still running\textsuperscript{31}. The senior leadership had applied for and received ITAL status (without using the ITAL label), which gave them the opportunity to offer up to 15\% of their program offerings as degrees.

Seneca viewed their degrees as an alternative to getting a degree at a university.

“Students can go to any university in Ontario or they can choose one of these degrees that’s much more focused on some application with some co-op etc.” – [Seneca employee A] The other benefit that Seneca emphasized was that offering degrees was a way to create pathways for diploma graduates from Seneca and other colleges in the system.

The degrees also play a role in terms of academic pathways because they provide building blocks. All of our degrees have got pathways from diplomas so for the non-degree prepared students there’s now an access route. They also provide an access route not just for our own students but for students from other colleges. – [Seneca employee A]

Table 5.3 is a listing of all of the programs that Seneca submitted to PEQAB and their status as of September 2012:

\textit{Table 5.3}

\textit{Listing of Seneca’s Program Applications to PEQAB and Status in 2012}

<table>
<thead>
<tr>
<th>Degree Name</th>
<th>PEQAB permission granted</th>
<th>Approval date</th>
<th>Running as of Sept 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Applied Business – Financial Services Management</td>
<td>Yes</td>
<td>March 2002</td>
<td>Yes</td>
</tr>
<tr>
<td>Bachelor of Applied Technology– Environmental Site Remediation</td>
<td>Yes</td>
<td>March 2002</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Applied Technology – Flight</td>
<td>Yes</td>
<td>November 2002</td>
<td>Yes</td>
</tr>
</tbody>
</table>

\textsuperscript{31} The Control Systems degree did not ever take enrollment. The Environmental Site Remediation degree failed to attract enough students to sustain the program.
Bachelor of Applied Technology – Software Development  Yes  November 2002  Yes
Bachelor of Applied Technology – Informatics and Security  Yes  June 2005  Yes
Bachelor of Applied Business – Human Resource Strategy and Technology  Yes  June 2005  Yes
Bachelor of Applied Business – International Accounting and Finance  Yes  August 2005  Yes
Bachelor of Applied Technology – Control Systems  Yes  September 2006  No
Bachelor of Applied Business – Municipal and Corporate Administration  Yes  September 2006  No
Bachelor of Applied Arts – Child Development  Yes  May 2008  Yes
Bachelor of Applied Arts – Therapeutic Recreation  Yes  July 2009  Yes
Bachelor of Commerce – Business Management  Yes  October 2011  Yes
Bachelor of Commerce – International Business Management  Yes  November 2010  Yes

Note. Data gathered from PEQAB annual reports and Seneca’s program websites.

5.1.7.1 Initial application process.

The timelines for developing the degrees were very short. The first PEQAB handbook for the pilot project for degree program in applied areas was circulated for comment in September 2001. When the call for degrees came, the opportunity was presented to the academic departments to generate ideas/proposals. The proposals were evaluated by an internal council consisting of Seneca’s senior academic leadership, called the Dean’s Committee. The committee received presentations from faculty and chairs and ultimately decided on which program to develop. The development work of the degree was the responsibility of the academic department with assistance from several supporting departments. The deadline for the first round of
applications was in December 2001 with decisions approved by the Ministry by March 2002 (PEQAB, 2002).

Seneca submitted two applications for the first round of the PEQAB pilot program. They were granted consent on March 2002 to offer and advertise degrees in Financial Services and Environmental Site Remediation. In the second round of the PEQAB pilot, Seneca submitted two additional applications. They were granted consent in November 2002 to offer and advertise degrees in Flight Technology and Software Development. Of those initial consents, as of 2012, Seneca continued to run three of those four degrees. The Environmental Site Remediation program was not able to attract enough students to sustain the program.

Degree development proved to be a tremendous amount of work for the academic departments:

How much work? Huge, huge. Has anyone shown you what these binders look like? They’re about two or three of these 4” binders. That’s how much documentation we needed. It’s a huge amount of work. It was hundreds and hundreds of hours of work and it still is hundreds and hundreds of hours of work. – [Seneca employee A]

So, we put together project teams to work on the curricula, to work on our business case in terms of what was needed. We had to do an environmental scan. We had to do research in terms of what was out there… because what has to happen with these degrees which doesn’t happen in any other program areas, you have to have a pretty fully developed course four years out or more than that. So, you’re talking about textbook selection and evaluation methodology and not just the learning outcomes that had to be prepared. And we didn’t have all the faculty lined up, so a lot of us were working on courses that weren’t necessarily in our area of expertise. – [Seneca employee A]
For the initial applications, like all other colleges in the system, Seneca found that the tight timelines and the navigation of the application process compounded to create more pressure in the development of the degrees.

So, we had to do all that and we had a specific date that these degrees had to be handed in. There wasn’t any time. We felt like we were working towards a very tight timeline and we didn’t really know what we were doing. We didn’t really know what degree curriculum should look like. – [Seneca employee A]

At the time, the process was new to the system, and Seneca did not have a chance to create a centralized approach to developing the degrees. Most of the cost of program development was absorbed by the academic departments within Seneca. The PEQAB submission mainly fell onto the shoulders of the academic dean. Much of the responsibilities of the academic administration had to be put aside for that period of time.

From the academic department’s perspective, degree programming was costly to develop and run. The programs cost more to develop because of the application requirements of the PEQAB process. The pressure to not fail, the uncertainty of the implementation of the process, and the oversight from PEQAB and the quality assessment panel made the process tedious. The academic department needed to commit a lot of resources in terms of time from the dean, chairs and selected faculty to develop the application over a four-to-six-month timeline.

5.1.7.2 Issues around faculty.

In the short run, the start-up faculty costs were high because Seneca needed to either pay the costs for their existing faculty to obtain Ph.D.’s or hire new specialized Ph.D. faculty to teach in the degree programs. Much of those costs would need to occur before Seneca received any revenue from the degree program. When asked whether degrees pay for themselves, a participant
from Seneca answered “No... How fast did I say that? About the best I can say, they definitely cost us money.” – [Seneca employee A]

In terms of hiring, the PEQAB process forced Seneca to change its hiring patterns, with Seneca hiring many faculty with Ph.D.’s simply to fulfil its PEQAB requirements. The senior leadership at Seneca found it amusing that fulfilling PEQAB requirements was so commonly the justification for hiring new faculty.

PEQAB became a household word, it comes up frequently. People use it when there’s a call for new positions or a call for funding or people will say “oh you know this new position is required for us to satisfy our PEQAB commitments”. – [Seneca employee B]

When it came to hiring in academic areas that may not have had a degree but where degree development could be possible, the hiring criteria for those faculty positions also changed to Ph.D. preferred or required.

As faculty retire we’re going to switch the demographics and change the composition of our faculty. So absolutely, the composition of our faculty teams has been impacted by PEQAB. – [Seneca employee B]

5.1.7.3 Centralizing the process.

The workload for developing degrees was placed on the academic departments. A lack of expertise in applying to PEQAB within the institution and the system precluded centralized help in making the application. However, after several degree programs were up and running, Seneca developed a more centralized approach to its degree development process.

Once the degrees were developed and implemented, Seneca created a Degree Implementation Group to discuss the issues when offering degrees. There were issues that the college had not anticipated during the development phase including issues with academic policies, promotional policies and transcripting. Discussions
at the Degree Implementation Group initiated policy development that then went to the academic council and the academic deans associated with the degrees. – [Seneca employee B]

Idea generation started at the departments. Originally, academic departments needed to bring degree ideas to the dean’s group in the form of a short application and presentation. That initial process was discouraging for the academic deans.

We used to have an application process, an internal application process. It was kind of cumbersome, and it got a bit frustrating because you could put a lot of work into something and it wouldn't go forward. I'm not sure that it generated a lot of interest in degrees. If anything, it almost began to discourage people. – [Seneca employee B]

Around 2009, Seneca’s approach to idea generation for degrees became less formal. In addition to gathering ideas from the academic departments, the Institutional Research department would look for ideas from other institutions to see what programming was out there and take those ideas to the Dean’s Committee to see if a dean would adopt an idea.

In 2009, Seneca created a new associate vice-president position to lead the Centre for Academic Excellence (CAE). The centre was meant to help academic departments with program review and development. As part of that mandate, the CAE supported the academic departments in degree development and consent renewal. But even with some organized central support, the onus of completing the PEQAB application remained with the academic department.

We’ve ended up creating permanent positions to assist us with program development and program renewal to do with our degrees in the Centre for Academic Excellence. We’ve created a policy analyst position that handles and supports new program development, and consent renewal issues to do with degrees. – [Seneca employee B]
The purpose of the policy analyst position was to communicate with PEQAB or the Ministry to better understand any possible degree issues.

One faculty member with lots of experience with working on previous degrees has been seconded there full-time. That person is going to help the academic team with directions through all the things that need to be done. Some areas don't need as much guidance because they've done it. So, for example, in our business area, they have a number of degrees. The deans there have gone through the process. They know exactly what needs to be done. They still need some central support, but they don't need the guidance in the same manner as a degree in an area that hasn't done it before or with people that haven’t done it before and that's where the CAE can play a bigger role. – [Seneca employee C]

The role of the Centre of Academic Excellence in the degree development process was limited to providing guidance on the PEQAB application process, as opposed to directing the creation of the application.

5.1.7.4 Consent renewals.

According to the PEQAB requirements, college degree programs need to be renewed every five years. Seneca submitted its first consent renewal applications in 2007. “We’re now into renewals so the whole consent renewal process has been huge for us, it’s consumed significant resources” – [Seneca employee B]. Multiple Seneca employees indicated that the consent renewal process was as much work as putting the original proposal together:

So, the Centre for Academic Excellence is actually kind of our response to that. We need to make sure that we're on top of renewals and that we're doing it well. – [Seneca employee C]

A senior administrator at Seneca explained the process of doing the consent renewal:
Before we submit a consent renewal, we, first, do a self-study which is really part of our program review process. We follow the processes that we use for all our other programs. It’s a significant binder. In the process, we invite in a panel of three: usually one from university, one from industry and one from another academic department within Seneca. It has been up to now, a dean from another area. After the self-study, we start a consent renewal document which is as big as a new program application. It has the same kind of information [as the new program application] along with the program review document and that all gets submitted to PEQAB. PEQAB then will send out its panel for a two-day visit. – [Seneca employee A]

5.1.8 Applied research.

Seneca was one of the leading colleges in developing research capacity for the college system. Seneca approached the applied research mission on many fronts. It established a senior administrative position (i.e., Associate vice-president of research and innovation) to build its research presence, partnered with universities and other colleges to attract research, lobbied the provincial and federal government for funding, and worked an incubator to help start-up companies develop technology. Table 5.4 outlines the major milestones of Seneca’s applied research history.

Table 5.4  
Seneca’s Major Applied Research Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Agency</th>
<th>Amount</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>OIT/CFI</td>
<td>$1,200,000</td>
<td>Applications in Bioinformatics - The Research and Development of Human Disease Markers for Diagnostic Assays</td>
</tr>
<tr>
<td>1999</td>
<td>OIT/CFI</td>
<td>$152,070</td>
<td>The development and evaluation of the effectiveness of interactive Internet-based teacher in-service education for teaching Broad Based Technology</td>
</tr>
</tbody>
</table>
curricula in Ontario Secondary Schools Grades 10-12

2002 CANARIE $3,500,000 Advanced Broadband Enabled Learning Project
Project Lead - York University

2003 SSHRC $1,482,800 Simulation and Advanced Gaming Environments
Lead – Simon Fraser

2006 CONII Establishment of CONII through OCE

2006 SSHRC $110,732 Restructuring Equity in Community Colleges

2007 NSERC Received NSERC eligibility

2008 ISM 50 contract projects funded Innovation Synergy
Centre in Markham

2009 NSERC - CCIP $2.3M over 5 years Centre for Development of Open Technology Research

2009 NSERC - CCIP $2.3M over 5 years Innovation through Flight Simulation

2011 FedDev $750,000 Available funding for SME commercialization projects

2012 NSERC - IRCC $200,000 Chair for Open Source Technology for Emerging Platforms

Note. Data gathered from NSERC award database, Seneca annual reports, and

Upon the announcement of the applied research in the legislation, Seneca created a new position dedicated to responding to the legislation. Notably, the position also added a new layer of senior administrator to the college system. The position was an Associate Vice President – Research and Innovation.

Even the creation of [the] position was putting our stake in the ground as a result of our differentiation in the world of applied research. For us to immediately
create a position Associate Vice-President of Research and Innovation that’s telling the world that we were serious about it – [Seneca employee B].

The new Associate VP position was responsible for overseeing a number of activities in the college in addition to developing research; it included degree development, quality assurance, and institutional research roles. The Associate VP position played a pivotal role in developing a college framework for being eligible for federal research dollars. Firstly, federal research funding councils did not have a program aimed at servicing the college system and the type of research that they were able to perform. The language about eligibility criteria referred to the university, and did not include other post-secondary institutions in the language. The Associate VP position along with government relations lobbied the funding bodies to add grant programs for the colleges. Secondly, colleges did not have the policy structures to be eligible for federal research funding, namely institutional research ethics boards, intellectual property and academic freedom policies. The Associate VP position led the creation of those structures and policies and shared them with other colleges in order to develop research capacity as a system.

As mentioned earlier, Seneca had hired an Ottawa-based lobbyist to lobby the federal government for access to federal research funding envelopes for the colleges.

We've also been active in advocating with the federal government for a share of research monies because the vast, vast majority of research money has come out of Ottawa, not out of the province and there's been some success in opening up new envelopes at NSERC and CFI and so on. – [Seneca employee F]

At the provincial level, Seneca spearheaded the development of CONII (Colleges Ontario Network for Industry Innovation) which provided funding for colleges to establish research offices and faculty to undertake smaller projects with Ontario Small and Medium Enterprises (SMEs). The CONII program did a service to the college system as a whole by identifying the
type of research that the colleges could undertake and providing proof that the colleges could succeed in an applied form of research.

We've grown our capacity significantly over the years. We were a leader in establishing applied research capacity within our college system and working with a small group of colleges which has now grown under what was called CONII and now it's evolved. – [Seneca employee B]

Although there were no federal research programs for the colleges, Seneca continued to build its research portfolio by working with SMEs, partnering with universities, and applying for smaller grants that did not require federal funding eligibility. In 2003, the NRC-funded Innovation Synergy Centre in Markham was created. The Centre “served the business community by providing advice and linkages to resources including York University and Seneca College”. Out of that relationship Seneca received a total of 50 contracted projects with SMEs by 2008. Along with the projects funded through CONII, Seneca began to establish a history of applied research.

In 2009, Seneca received its first NSERC award in the College and Community Innovation Program (CCIP) for $2.3M over 5 years for a project in evaluating flight simulation technologies. In the next round of NSERC CCIP, Seneca applied for and received another grant of $2.3M over 5 years in open source technologies, a specialization that they had had for numerous years.

In 2011, Seneca was awarded $750,000 in FedDev support. In effect, the FedDev funding allowed Seneca to partner with local SMEs to solve applied research problems without having to directly apply for a new funding envelope. Seneca’s FedDev grant supported 16 different SME projects.
Although Seneca had an Associate VP – Research and Innovation, the position was not entirely dedicated to applying for research funds and administering research projects. As the scope of the position grew, Seneca identified that they needed to dedicate an office to research. In 2011, Seneca established its full-fledged research office - The Office of Research and Innovation. As of 2012, Seneca had hired a dean, eight full-time and two part-time staff dedicated to writing proposals, looking for funding, and assisting the academic areas pursuing applied research.

5.1.9 Institutional research and quality assurance.

Prior to 2002, Seneca had a comprehensive program review policy in place. The process incorporated the perspectives of students, graduates, and employers, where the results would be documented and reported to the Advisory Committee and made available to the Board (Seneca College, 2000). The policy required for program to review every three years.

Seneca found that the process needed to be streamlined to provide centralized resources within the college to support data gathering and provide guidance on the process. The program review process would be driven by each academic dean and supported by the Office of Strategic Planning. The program review team consisted of two program chairs and four faculty members from around the college. In 2000, Seneca established a director of institutional research position to aid in gathering data for the program review process.

In 2004, in light of a new Seneca strategic plan focusing on quality assurance and the new requirements from the PEQAB policy to have certain criteria in the college’s program review policy, Seneca put together a task force to review the program review policy once again. The task force found that the policy of reviewing each program every three years was not feasible with the college’s resources. The policy was changed to reviewing programs every 7-10...
years in compliance with the provincial guidelines, noting that the College and its board was now responsible for ensuring that program reviews were implemented. The task force also recommended that the college provide more centralized support for program review through the Institutional Research team. The Institutional Research team was to provide an environmental scan and data collection support to the program review team. The policy affecting the internal responsibility of the process was shifted from resting solely on the dean of the academic department and distributed to the vice-president academic, the dean, and the program chair. The change outlined specific accountabilities. Seneca placed the program review process under the purview of the Associate Vice-President of Research and Innovation and created a dean position to look after the process.

One participant in the study talked about the changed expectations of program review in the system from being a luxury to being systematized.

I think the word forced might be too strong a word, but it made it so that that program review couldn't become a luxury. It had to become a necessity, the better word is that we systematized program review. – [Seneca employee C]

The work load on the institutional research team increased over the years. The team started with a director and an assistant in 2000. By 2004, the research demands increased and the assistant position became a research analyst. By 2007, the need for institutional research had grown further still. They had one director, and three research analysts, and still the number of people was not enough to handle the data requirements from all of the processes around the college.

I think, and that's all an area that continues to grow meaning the whole motion of greater accountability means that generating reports or generating data becomes important. – [Seneca employee C]
The program review process proposed in 2004 was a three-tier system supported by three different departments within Seneca: The Office of Research and Innovation, Centre for Professional Development, and Institutional Research. The tier 1 review was an annual review conducted by Institutional Research by examining the metrics of a given academic program. A tier 2 review was only triggered if a tier 1 review had any concerns such as low KPIs or enrollment, and its aim was to identify the potential causes and implement any immediate solutions where feasible. A tier 3 review occurred at minimum every seven years, and was deemed a full program review.

The full program review consisted of an internal review team consisting of potentially nine to ten people from different areas of the college. The internal team would receive training on quality assurance processes and then conduct the program review. The program review team was responsible for communicating the findings to the program advisory committee. The program review team was then responsible for creating a 15 to 20-page report with an action plan presented to the Dean and the Vice-President Academic. In practice, the process that Seneca created was still too onerous on the academic departments.

The refinement of the process led to more centralization. “Degree development and degree renewal has become so big it’s gone out of that [the Associate VP of research and planning] portfolio” – [Seneca employee C]. Around 2009, as mentioned earlier, Seneca created a department called Center for Academic Excellence (CAE). The CAE had a new associated Associate VP Academic – Educational Excellence. The CAE took over responsibility for program review, as well as developing e-learning, faculty performance review, and new program development. By 2011, there were five full-time faculty seconded to the CAE and the existing institutional research team was still supporting the process.
5.1.10 Hiring and positions created.

Over the period of the study, Seneca’s domestic enrollment grew by 22%, and it continued to grow its international enrollment. The college started a strong presence in applied research and degrees. External to the academic departments, there have been a number of positions and functionality added over the study period. For the most part, the positions added to the college were a direct result of the mission expansion and new operating environment of the colleges.

Seneca created positions to support the new activities available to the college from the legislation. All of these new activities started off under the responsibility of the new Associate Vice-President of Research and Innovation. The position was defined around those new activities, namely program review, degree development, and applied research.

As applied research developed Seneca created a Dean of Research. In 2011, Seneca “no longer had an Associate Vice-President directly responsible for research but had a dedicated Dean of Research and Scholarship” – [Seneca employee B]. Under the Dean of Research and Scholarship was a Director of Industry and Innovation. The Director of Industry and Innovation had four people employed in the department. The dean position was responsible for the larger grant applying and building the research infrastructure, while the director mainly created research partnerships with SMEs using CONII and FedDev funds.

In 2009, Seneca reinforced the new level of senior academic administrator. As mentioned in earlier sections, it created the Associate Vice-President Academic of Educational Excellence. The position absorbed the larger workload arising from program review and development. At the same time, the Associate Vice-President – Research and Innovation was renamed to Associate Vice-President Academic – Research and Innovation.
Internal to the academic departments, the academic administration was stretched over time. Seneca, generally, had a two-tiered academic administration: dean of a set of related programs and chairs that were responsible of a subset of those programs.

People are working harder. Absolutely. Working faster. You hear often “I feel like I’m on a treadmill and not getting anywhere”. I spend a lot of my days putting out fires and less time for strategic planning. Our numbers have increased so there’s more faculty. Fewer hours to look at the long-term projects, so it’s more difficulty. And more opportunities as well. So, there’s more opportunities to get involved in more things like research, like other projects that just weren’t available 10, 15 years ago. The chairs feel that more responsibility has fallen on their shoulders. They’re feeling quite stretched, as are the deans. We just can’t keep up. I mean, you hear this over and over again in the hallways. We can’t keep up. – [Seneca employee]

The operating environment has become more complex and the requirements for success have expanded for academic program chairs. The deans and program chairs have started to expand their roles to deal with more internal stakeholders.

The chair role just keeps getting more and more added and they have no way of controlling that or controlling other people’s deadlines or other people’s requests or in some cases, demands. The same can be said for a dean, so it’s hard to sort of put boundaries. It’s just keep adding, keep adding, keep adding things to consider. And for me, that makes it more challenging and that makes the job more exciting. That’s how I personally look at it. How much more can I do and still sit…and stand, or walk. – [Seneca employee]

The job of the academic administrator at Seneca has become very complex. Chairs have to deal with “diversity in their credential mix and their student type and not to mention the fact that you’ve got language barriers and diverse cultural backgrounds; all of those demands” – [Seneca employee B]. In addition, chairs may need to work with applied research or degree
administration. “Plus, applied research. If you’ve got degrees, you’re supposed to be into applied research and potentially internationally joint ventures to bring in revenues” – [Seneca employee B]. In some of the larger academic departments, the academic department has moved to a three-tiered academic administration, including an associate academic chair under the established academic chairs and dean.

5.1.11 Section summary.

Seneca was the largest college in this study and is located in the Greater Toronto area. Seneca College was chosen as a case in this study because it exhibited a strong indication that it wanted to differentiate from other colleges in the system. As of 2012, it offered 11 degree programs and engaged in a significant numbers of applied research projects. Over the period of the study, the college spent much of its efforts creating academic pathways for students by partnering and creating agreements local universities. The college was large and engaged in many activities; hence it was difficult to capture the extent of its activities. Over the period of the study, Seneca created engrained many of its new activities into its organizational structures and functionality.

5.2 Niagara College

Niagara College was established in 1967 under the Ontario Colleges of Applied Arts and Technology Act, 1965. Niagara College is located in the Niagara region at the tip of Ontario’s Golden Horseshoe region. The Golden Horseshoe region is amongst the most densely populated and industrialized in Canada.

The Niagara region is known for its agricultural lands, especially viniculture. Its close proximity to the United States and Niagara Falls also make it a popular tourist attraction. The
Niagara region has international name recognition. Niagara is a border town with the United States and handles much of the vehicular border crossings.

In terms of higher education, Niagara is the only college in the Niagara region. Brock University is located in the Niagara region and is a primarily undergraduate institution. Brock offers business, and arts and science programs, and is known also for its Faculty of Education.

Niagara College has two main campuses with two smaller storefront satellite campuses. The Welland Campus, one of its main campuses, houses programs in technology, communications, health, public safety, and automotive. The second main campus, Glendale campus, is a newer campus that was established in 1998, and houses their horticulture, tourism, and business programs. Overall, Niagara College has a relatively comprehensive set of programs. The college is considered to be a mid-sized college.

5.2.1 Niagara’s focus over the study period.

The leadership at Niagara has put a lot of emphasis on connecting students with industry through applied learning experiences, applied research, and collaboration with industry. Niagara’s “economic development mission is very, very important” – [Niagara employee D]. Niagara is “committed to students, the students’ success and committed to economic development and we have those dual roles supporting our region and economic development and supporting students” – [Niagara employee E].

In the implementation of its mission, Niagara has stressed prudent financial and enrollment management along with an economic development, which has led to partnerships with the local community, applied research opportunities, establishment of “learning enterprises”, and workforce development.
In terms of degree offerings, Niagara could be characterized as cautious, as they created two joint degrees with other colleges during the initial pilot phase in 2002, launching one degree and shelving the other. Niagara launched one other degree in 2005. As of 2012, they were running two degrees.

5.2.2 Senior personnel.

Dr. Dan Patterson was the President of Niagara College from the beginning of the period of the study to the end. He commenced his tenure at Niagara College as President in 1996. The Vice-President Academic was Dr. Bonnie Rose from 2002-2008. In 2008, Dr. Steve Hudson became the Vice-President Academic. Prior to 2008, Dr. Hudson was the Vice-President of Corporate Services (2002-2008). Overall, Niagara has had great continuity in leadership over the period of the study.

President Patterson commented that he thinks “it’s probably fair to say that Niagara’s culture has been built up over ten years with a consistent theme around vision and mission.” As I spoke to participants in the study from Niagara College, I noticed a very high degree of coherence regarding the vision and mission of Niagara College.

5.2.3 Leading into the period.

From the year 2000, Niagara has been able to sustain solid budgets and surpluses. Looking at the annual reports from 2000 to 2012, there is little change in the mission and how the leadership of the college has been reporting to the board.

Niagara, from before the legislative changes, has not really altered its direction. In a president’s report to the board in September 1998, President Patterson outlined three activities that were not common to all of the colleges at that time (Niagara College, 1998). Firstly, Niagara
had recently renovated its Welland campus with the intention to “generate new programs and create new revenue generating opportunities”. Secondly, the president reported on the number of international students that Niagara College attracted and how a collapse in South Asian currency decreased revenue for their international English as a Second Language (ESL) programs. Thirdly, Niagara was working with McMaster University to start joint research endeavours in manufacturing. The outline of these three activities showed that Niagara was implementing alternative ways to grow its revenues through international students, applied research, and partnerships with universities.

5.2.4 Reaction to the charter and differentiation.

In 2000, Niagara College was thinking about how it could provide a differentiated mission from the other colleges in Ontario. The base of the differentiation was not about activities such as degrees or applied research, but about areas of specialization, namely hospitality and tourism, information technology and manufacturing, and community services (Niagara College, 2001). In its differentiation presentation to the board, Niagara’s leadership identified that the college was located in Canada’s largest tourist area; that they had already established centers of excellence in the areas of hospitality and tourism, technology, and community services such as policing; and had a history of working in partnerships. At that time, Niagara College planned to open pathways for their students through applied degrees, transfer arrangements, and collaborative programs; support industrial innovation through applied research and business services; and increase community infrastructure and innovation thorough partnerships and centers in specialized areas (Niagara College, 2001b).

Prior to the release of the new Charter, Niagara had already identified that it needed a diversified revenue portfolio. The college leadership had already indicated the importance of
international activities with respect to budget in its reporting to the board, started partnering with industry for applied research, and already had plans to expand their revenue-seeking activities (Niagara College, 1998).

In 2001, the college considered pursuing the idea of being a polytechnic. According to its board minutes, Niagara viewed being a polytechnic as an extension of offering degrees and performing applied research. Although Niagara College did not apply for differentiated status (i.e. ITAL status) when the Ministry asked for proposals in 2000, Niagara later found value in being recognized as ‘more’ than a college, either as a polytechnic or ITAL. In 2005, Niagara identified that it was going to pursue ITAL designation (Niagara College, 2005b). At that time, in Niagara’s view, the ITAL designation signified advanced level programming and increased applied research capacity. The feeling was that “Niagara College has outgrown its designation as a ‘College of Applied Arts and Technology’”. However, the government at the time was not interested in reopening discussions about differentiated status after the 2000 call.

Niagara created new educational ventures that they called ‘Learning Enterprises’. Learning enterprises were student-run businesses that aligned with the programming at Niagara: The Niagara College Teaching Winery, the Teaching Brewery, Benchmark Restaurant, Niagara Waters Spa, and Niagara College Greenhouse. The idea of the enterprises was to give students from within the college experience with operating a fully-functioning business. By 2009, Niagara had set up the Niagara College Learning Enterprise Corporation that contained these businesses as a subsidiary of Niagara College.

Niagara’s approach to the new legislation was to use it to become more financially-viable. Niagara’s leadership identified its academic areas of specialization and focused its revenue generating activities around those areas of academic specialization. In terms of new
academic activities, degree granting was not aggressively pursued because Niagara College’s leadership had determined that it was a risky endeavour that may not be able to financially sustain itself [Niagara Employee A, B, D]. Instead, Niagara developed applied research areas around its academic areas of specialization.

5.2.5 Budget.

Niagara College is a mid-sized college. Entering the year 2002, Niagara had an accumulated surplus (net assets) and was running annual surpluses, indicating that Niagara was able to run its operations with some financial flexibility. Table 5.5 shows Niagara’s net assets, operating revenue and annual surplus from 2000 to 2012.

The table below is used to understand the financial position of Niagara College in the two years leading into the study plus the ten years of the study.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Assets</th>
<th>Operating Revenue</th>
<th>Surplus/Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>12,236,340</td>
<td>57,182,784</td>
<td>1,821,454</td>
</tr>
<tr>
<td>2001</td>
<td>13,502,156</td>
<td>59,671,880</td>
<td>1,265,816</td>
</tr>
<tr>
<td>2002</td>
<td>10,023,003</td>
<td>62,092,565</td>
<td>1,470,556</td>
</tr>
<tr>
<td>2003</td>
<td>11,986,547</td>
<td>66,492,248</td>
<td>1,963,544</td>
</tr>
<tr>
<td>2004</td>
<td>12,187,451</td>
<td>71,772,641</td>
<td>200,904</td>
</tr>
</tbody>
</table>

32 The incongruence between the surplus/deficit values and the changes in net assets are due to the changing accounting practises required by the MTCU and some non-operational changes in revenue. The numbers give a general understanding of the college’s financial position.

33 In 2002-03, MTCU changed the accounting policy with respect to the accrual of employee benefits and sick leave; which had the effect of lowering the net assets of the college.
<table>
<thead>
<tr>
<th>Year</th>
<th>Tuition Revenue</th>
<th>Operating Expenditure</th>
<th>Net Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>12,099,365³⁴</td>
<td>73,829,145</td>
<td>955,621</td>
</tr>
<tr>
<td>2006</td>
<td>18,143,957</td>
<td>79,877,677</td>
<td>5,075,319</td>
</tr>
<tr>
<td>2007</td>
<td>23,038,001</td>
<td>85,109,909</td>
<td>3,700,309</td>
</tr>
<tr>
<td>2008</td>
<td>26,501,220</td>
<td>91,396,694</td>
<td>3,904,206</td>
</tr>
<tr>
<td>2009</td>
<td>31,169,798</td>
<td>98,653,752</td>
<td>5,629,507</td>
</tr>
<tr>
<td>2010</td>
<td>38,698,317</td>
<td>109,849,383</td>
<td>4,883,587</td>
</tr>
<tr>
<td>2011</td>
<td>45,634,096</td>
<td>116,588,100</td>
<td>4,137,890</td>
</tr>
<tr>
<td>2012</td>
<td>47,531,054</td>
<td>122,014,202</td>
<td>1,018,614</td>
</tr>
</tbody>
</table>

*Note. Data amalgamated from Niagara College’s Audited Consolidated Financial Statements (2001-2012).*

Niagara maintained comfortable surpluses over the period of the study. However, Niagara still faced budgetary concerns and needed to constantly strategize how to maintain those budgets. Niagara College’s strategy from even before the change in legislation was to diversify its income streams. It had already had success attracting international students, industry training and partnerships.

Niagara College had a three-vice-president structure: academic, finance and administration, and student and external affairs. The Vice-President of Student and External Affairs also held the position of CEO of the Niagara College Foundation [Niagara Employee]. There was a very strong mission on raising the profile of the college locally, politically, and with industry. The Niagara executive felt that the rise in profile led to increased enrolment, fundraising, and funding.

³⁴ In 2005, MTCU changed the accounting policy with respect to the reporting of tuition revenue; which had the effect of lowering the net assets of the college.
Niagara was very cost-conscious and revenue-driven. In the annual business plans, for example, the senior leadership would outline the number of positions hired into a particular employee group (administration, faculty or staff). Newly budgeted positions needed to be for one of two reasons: new revenue-driven activities or quality improvements.

In terms of maintaining strong revenue streams, Niagara’s core strategy was to grow its enrollment:

One of the things we figured out is that we had to grow. If we didn't grow, we were going to have some major budget challenges. I doubt there are many other colleges that were as sharply focused on growth and had figured out the analysis around the new budget multi-year funding formula as early as we did and stayed this focused around growing weighted funding units, not necessarily students, realizing all of the impacts of multi-year formula on the new government grant.
– [Niagara employee E]

In terms of costs, Niagara tried to reduce its overall cost structure. The Niagara leadership identified that the multiple campuses created a larger cost structure in terms of access to library facilities and student services.

We’ve tried to consolidate to two campuses…we were in 15 different locations ten years ago. The more you can bring economy of scale for a mid-sized college the better. We even find two campuses a challenge in terms of almost being too many colleges. – [Niagara employee D]

In terms of our financial management, we’re very conscious of the fact that we try not to duplicate services, but we have two international offices now because we have so many international students. We have two bookstores, two libraries, but we’re very conscious of the cost and we try to minimize those through efficiencies. – [Niagara employee D]
Overall, Niagara College put a very conscious effort into its financial management. The strong financial management of the college allowed Niagara the ability to take measured risks in order to invest resources into growth.

5.2.6 Enrollment, program mix and international students.

In comparison to the other colleges in the study, Niagara exhibited tremendous enrollment growth. Niagara grew its domestic enrollment by approximately 47% over the ten-year period of the study. In 2004, Niagara had 64 funded programs and grew that number to 82 by 2011 (Government of Ontario, 2016). Niagara had a sustained focus to attract international students originating prior to the legislative changes. Table 5.3 shows Niagara’s annual enrollment between 2000 and 2012.

Table 5.6

<table>
<thead>
<tr>
<th>Niagara Full-Time Equivalent (FTE) Enrollment, 2000 – 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>2000</td>
</tr>
<tr>
<td>2001</td>
</tr>
<tr>
<td>2002</td>
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<tr>
<td>2003</td>
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<td>2004</td>
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<tr>
<td>2005</td>
</tr>
<tr>
<td>2006</td>
</tr>
<tr>
<td>2007</td>
</tr>
</tbody>
</table>
Niagara is not part of the high population growth Greater Toronto Area. Niagara identified that the college-age demographic in the local region was shrinking. In spite of that challenge, Niagara planned to grow its enrollment and did grow at a considerable pace. However, due to the shrinking of the local target demographic, the enrollment growth could not rely on the traditional college program mix of two- and three-year diplomas in general program areas to sustain enrollment growth.

We were in a region that had a declining high school population. There were two things we wanted to do. We wanted to grow as quickly as we could in terms of domestic weighted funding units and we wanted to grow international knowing that we were an area unlike the GTA. – [Niagara employee E]

Niagara tried to attract more students by increasing the number of programs it offered. Furthermore, that programming was more geared towards attracting students outside of the traditional high school graduate. Niagara introduced many shorter haul programs, including graduate certificates and other one-year certificates.
We certainly have many more programs. I think we have about 35 to 40 new programs in the last seven years. So, that’s a big program increase. The mix, obviously, we have more graduate certificates now than we did then, probably more diplomas. Proportionately probably not a big change in mix, with the exception of degrees and certificates, one year certificates: [certificates], many more than we used to have and degrees, we have a couple and a couple more planned. – [Niagara employee C]

The leadership at Niagara had identified that enrollment, program mix and financial stability were highly interconnected.

We were facing a budget crisis and we didn't want to get into the death spiral of cuts and begetting more cuts. We wanted to grow and thrive, but to solve our budget problem, we had to grow. – [Niagara employee E]

Fundamentally, for colleges, enrolment growth has been the only way to stave off significant financial difficulties. So, continuing to grow enrolment, grow programs – stretch – has been a critical element of reputation-building in this college for all the time I have been here. – [Niagara employee A]

Recruitment, enrollment and tuition of international students became increasingly important to balance the budgets at Niagara. The emphasis that Niagara placed on international student growth was shown in its reporting to the board. Niagara was the only college in this study that explicitly reported its progress in attracting international students, signifying the importance it placed on international students with respect to institutional success.

We're not in the GTA so, for Niagara, it helps both in diversity and richness of our environment, but budget wise, [international] has made the difference in some years between being in the red and being in the black. In terms of areas that stand out for growth, at least since I've been here, international, I would venture to say has grown faster than any other individual area of the college. – [Niagara employee E]
In summary, Niagara College purposefully focused on enrollment growth to stave off financial difficulties. Because their traditional catchment of students was diminishing, Niagara created programs to extend outside their traditional catchment of high school leavers. The programming mix included a relatively new focus on graduate certificates aimed at university and college graduates, and degrees aimed at a different high school graduating group. International student tuition became very important to the college.

5.2.7 Degree activity.

In 2000, in the first round of pilot applications, Niagara started developing two degrees. One was a joint program with George Brown called Hospitality Operations Management. The second degree was called Integrated Systems Design. Before submissions, Niagara decided not to submit the Integrated Systems Design degree (Niagara College, 2001a). The joint degree application was not recommended by PEQAB to the Minister in the first round. Entering the second phase of the pilot, Niagara submitted two applications. The first was a resubmission of the Hospitality Operations Management program with George Brown and a second joint degree with Algonquin in Photonics. Both of the degrees were approved by PEQAB and the Minister. The Photonics degree was not able to attract enough students and never started. The Hospitality Operations Management Degree was able to start, but Niagara and George Brown both ran the degree independently of each other. In 2005, Niagara applied for and started running another Applied Business degree in International Commerce and Global Development.

In 2012, Niagara was offering two degrees in Applied Business. Table 5.7 shows Niagara’s history of degree development and which programs were running as of June, 2012.
Table 5.7

Listing of Niagara’s Program Applications to PEQAB

<table>
<thead>
<tr>
<th>Degree Name</th>
<th>PEQAB approved</th>
<th>Application Date</th>
<th>Still Running?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Applied Technology – Integrated System Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of Applied Business – Hospitality Operations Management, jointly with George Brown</td>
<td>Yes</td>
<td>Nov 2002</td>
<td>Yes, not jointly</td>
</tr>
<tr>
<td>Bachelor of Applied Technology – Photonics, jointly with Algonquin College</td>
<td>Yes</td>
<td>Nov 2002</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Applied Business – International Commerce and Global Development</td>
<td>Yes</td>
<td>July 2005</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note. Data gathered from PEQAB Annual Reports and Niagara’s program websites.

Niagara College was in philosophical conflict about degree development. As a result, it may have slowed their progress in degree development.

In hindsight, [degree offering] isn’t as successful as we’d like it to be. However, if our driver is less to do with status around degrees, and more to do with status of making sure our students excel and grow, then if they want to have a degree they can go for it. – [Niagara employee D]

Niagara identified two main issues with the development of degree programs. The first issue was a conflict with the traditional access mandate of the colleges. The second issue had to do with the resources necessary to develop and maintain degree programming. Firstly, Niagara felt that degree development may be in conflict with an access mandate.

One of the things we want to be very careful about as we make this journey, and this is where it’s very complex, in moving towards degrees, baccalaureates, we
also don’t want to take away from our access agenda which is very, very important. – [Niagara employee C]

As a result, Niagara focused a lot of its attention on creating external pathways for their students through articulation agreements with universities.

Secondly, as outlined in the budgeting section, Niagara considered carefully the financial aspects of an activity before making a decision. The leadership team believed that degree offering was particularly costly and difficult to start up and maintain.

Ramping up and developing degrees takes an enormous amount of effort, time, cost and money. And that has been a concern and so we’ve taken it more incrementally. I think people have underestimated the resources that it takes. [Niagara employee D]

It was expensive; the actual curriculum review that has to be done, hiring people with Master’s or PhD’s, the looking at the marketplace and doing the proper analysis to make sure that you’re not duplicating university, getting that niche right and doing your homework. It’s a lot if you look at all the hours, to build the case, monitor it and review it; and then launching it and hiring and then attracting students to it. [Niagara employee D]

With the implementation of the two degrees, Niagara has been conscious of the cost of those degrees. Some aspects of degree programming could not be shared with the existing diploma programs and as a result of the resources being exclusive to the degree program, financial sustainability depended on attracting a ‘critical mass’ of students that promoted some economies of scale.

Anytime a college of our size offers a degree it does have an impact because of critical mass. When you have a larger college, you can develop critical mass that allows you to offer cost-effective types of delivery. When you start with one or two degrees you have extreme challenges with critical mass because you can’t
just share everybody. Some courses are specific, proprietary to certain degrees so
even no matter how many degrees that you have, you are going to have a small
cohort and that is going to be expensive. – [Niagara employee B]

5.2.7.1 Initial application process.

The timeline challenges in developing the degrees remained constant for all colleges
taking part in the PEQAB degree pilot program. The development team from Niagara consisted
of a dean, the main contact for external industry relationships, and several faculty members. “It
can’t be put together by just one person. There has to be a team of people with various areas of
expertise in order to pull it together” – [Niagara employee B].

Before the process started, the Niagara leadership had suspicions that the process would
have been political and skewed towards the larger colleges. Niagara accordingly decided to
partner with George Brown College to create its first degree application.

Understanding the politics and because we were considered a smaller college at
the time we partnered with George Brown. George Brown gave us a little bit more
leverage from the larger college perspective. Politically I think was the only way
we were able to successfully get that degree at that time. The first degree panel
turned [the application] down and it was obviously the university members on that
panel. I am not saying it was totally because of that but it didn’t matter what we
were going to present, it didn’t matter. – [Niagara employee B]

Niagara invested a lot of resources into the degree application process. Two of its senior
decision makers were dedicated to the degree application. Niagara added a complication of
making the application with George Brown College located in downtown Toronto,
approximately a 1.5-hour drive away.

Well, did I get relief from my day job? No. I had to do it on top of it. We met with
George Brown, I can’t even remember, we were doing it constantly. We had
phone conferences. We would meet at a conference room half way between, in
Burlington or something and had full day sessions of going through the learning outcomes and making sure the curriculum made sense, and had industry focus groups. I mean quantifying [the amount of work]? I wouldn’t even begin to – it was months of work. So, I don’t think I can quantify it for you. – [Niagara employee B]

Members of the original team recollected that “we just did a ton of research. It was a lot of work, that was a lot of work.” – [Niagara employee B]

5.2.7.2 Centralizing the process.

Although Niagara did pull resources from the college centrally to support its limited degree development, most of the resources were pulled from the academic departments. Future degree development at Niagara has been part of the internal discussion but not much additional resources have been put towards it. Niagara has not needed to build a central infrastructure (or hire a person solely responsible) for developing degrees or managing the PEQAB process. Any management happens in the central program development team.

5.2.7.3 Issues with the process.

In 2011, Niagara reluctantly pursued future degree development. They had plans to develop new degree programs, with the intention of developing a set of programs running from a common core. However, as of 2012, Niagara had not made further progress in degree launching. A senior administrator felt that the PEQAB process was “burdensome and too overbearing in its rigour” – [Niagara employee D]. Another administrator thought “even going way back way to the beginning, the decision for the colleges to offer four year degrees, I am still not convinced it was the right thing to do” – [Niagara employee B].
**5.2.8 Applied research.**

Niagara College was an early entrant into applied research at the college-level. Before the colleges were able to apply for federal research grants, Niagara gained success in and institutional exposure to applying for government grant funding. Table 5.8 outlines the major milestones of Niagara’s applied research history.

**Table 5.8**

*Niagara’s Major Applied Research Milestones*

<table>
<thead>
<tr>
<th>Year</th>
<th>Agency</th>
<th>Amount</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Strategic Skills Investment</td>
<td>$1,595,209</td>
<td>Center for Integrated Manufacturing Training and Applied Research (CIMTAR)</td>
</tr>
<tr>
<td>2000</td>
<td>Strategic Skills Investment</td>
<td>$3,500,000</td>
<td>Photonics Education and Training for Strategic Skills Shortage</td>
</tr>
<tr>
<td>2000</td>
<td>CFI</td>
<td>$797,110</td>
<td>Centre for Advanced Visualization (CAV)</td>
</tr>
<tr>
<td>2000</td>
<td>HRDC</td>
<td>$75,000</td>
<td>Labour Market Research study – Making Waves: Careers in the Marine Sector</td>
</tr>
<tr>
<td>2001</td>
<td>Strategic Skills Investment</td>
<td>$811,802</td>
<td>Centre for Manufacturing of Advanced Ceramics and Nanomaterials (with Queens University)</td>
</tr>
<tr>
<td>2002</td>
<td>Strategic Skills Investment</td>
<td>$1,774,750</td>
<td>Tourism Industry Development Centre</td>
</tr>
<tr>
<td>2002</td>
<td>HRDC</td>
<td>$27,850</td>
<td>Labour Market Research study – Niagara Aerospace Partnership for Learning</td>
</tr>
<tr>
<td>2002</td>
<td>HRDC</td>
<td>$30,000</td>
<td>Labour Market Research study – Skilled for life: Apprenticeship</td>
</tr>
<tr>
<td>2003</td>
<td>HRDC</td>
<td>$120,000</td>
<td>Labour Market Research study – Work in Niagara</td>
</tr>
<tr>
<td>2003</td>
<td>OIT</td>
<td>$343,635</td>
<td>Virtual Reality Technologies for Land Use Planning</td>
</tr>
<tr>
<td>2003</td>
<td>CITO</td>
<td>$94,893</td>
<td>Real-time Collaborative Visualization System</td>
</tr>
<tr>
<td>2004</td>
<td>Strategic Skills Investment</td>
<td>$533,000</td>
<td>Advanced Ceramics and Nanomaterials, phase 2</td>
</tr>
</tbody>
</table>
2004        Strategic Skills Investment $2,660,325 Advanced Learning in Photonics for Manufacturing and Biotechnology Applications
2004        NSERC CCIP $600,000 Supporting Smart Growth through the Use of Virtual Reality Technology
2008        NSERC CCIP $2.3M Sustain Niagara: Supporting Innovation in Agricultural Land Management over 5 years
2011        NSERC ARTi $140,959 Radiometric and photometric equipment
2011        NSERC ARTi $149,788 Reverse Engineering equipment
2011        NSERC ARTi $134,470 Thermal Vacuum Deposition System and Glovebox
2011        NSERC CCIP $1,000,000 Economic Revitalization in the Niagara Region through Food and Culinary Innovation
2011        FedDev ARC $750,000 Funded smaller commercialization projects with SMEs
2012        NSERC IRCC $200,000 Precision Agriculture and Environmental Technology
2012        CFI $678,510 Canadian Food and Wine Institute: Niagara Food, Culinary and Beverage Innovation Centre

Note. Data gathered from NSERC database and Niagara College annual reports.

The Niagara leadership team found that applied research fit within its interpretation of the college mandate. The applied research mandate:

formally added new layers of activity that were now funded by the government in a number of areas but I think it also validated that undergraduate research that was being done in courses as well and really gave a legitimacy to call it research and move it forward. – [Niagara employee A].

Niagara College started with an ‘Office of New Product Development’. The Office created new curriculum and developed new offerings for the college. “As research became part of what the college did, partly because of the Act, the folks who were doing new product
development went and started getting research grants” – [Niagara employee D]. Niagara had an early understanding of attracting research dollars. At the time, there was a feeling that applied research was a natural fit for the activities they were already engaged in. “The college has recognized that there are research dollars out there and as an educational institution with the amount of resources and networking that we have it just makes sense for us to be involved in that” – [Niagara employee B].

Niagara viewed applied research as a revenue source, and as an avenue to attaching itself to local economic development. It started with a partnership with General Motors (GM) in 1996. Niagara had, “for eight or nine years, four-to-five full-time staff that worked right in the plant at General Motors to retrain. We helped train the people going from a traditional manufacturing system to a flexible manufacturing system” – [Niagara employee D].

Through the relationships that Niagara had developed with GM, Niagara became familiar with some of the challenges facing GM. As a spinoff of the relationship, Niagara applied for a Strategic Skills Investment grant from the province to set up the ‘Center for Integrated Manufacturing Training and Applied Research’ (CIMTAR) that focused on visualization techniques in manufacturing. “Through CIMTAR we got funding to get advanced visualization and we took off” – [Niagara employee D].

In terms of structure, Niagara set up the Centre for Advanced Visualization (CFAV) in 2005 as a subsidiary (Niagara College, 2005). The Centre consisted of a dedicated lab to do projects and a full-time dedicated administrator position to oversee the projects. The CFAV operated as a fully-functioning business for 5 years. The business then wound down because the technology that the CFAV used became cheaper and more readily available. The CFAV still
existed in 2012, however, applying the visualization technology to different applications. The CFAV changed its setup to centre around a research chair. The research chair was:

not faculty the same way as other faculty. He's not in the union, he doesn't teach. His job was to do projects, most of which have to do with either precision agriculture and instrumenting agriculture with intelligence and computation or visualization or things to do with video and images and so on.

In 2004, NSERC established a pilot grant program, under the name College and Community Innovation Program (CCIP) directed to establish the program needs for applied research in the Canadian colleges. Niagara was one of six colleges nationwide, and the only college in Ontario, to receive the grant.

We were able to get the first NSERC pilot project that was critical to colleges getting an envelope in federal government for applied research. The head of NSERC attributes the success of Niagara College’s advanced manufacturing, and advanced visualization. – [Niagara employee D]

Niagara College, by 2007, was one of the more experienced colleges in the Ontario system with respect to applied research and successfully applying for research grants. In June 2010, they created a new level of position at the college with the creation of an Associate Vice-President of Research and Innovation. The applied research department of the college had grown from two people in 2005 to ten by 2010 [Niagara employee F]. The addition of the position also indicated the addition of another level of senior administrator within Niagara.

By 2011, even though Niagara was at the forefront of Ontario colleges in terms of research, it was evident that Niagara’s research was still in its infancy. There was a fair amount of policy development to do regarding research at Niagara when new funding opportunities arose.
Before the FedDev ARC Program came up, the applied research and commercialization, we did not have as comprehensive a set of processes through which we can intake opportunities from industry and evaluate them: document the project, create the project plan, outline the possible outcomes and results, track the money or create the collaborative project agreement, which sets out the various clauses with respect to various things like liability, safety, confidentiality, intellectual property, communications, compliance with law and that type of stuff.
– [Niagara employee F]

In 2011, the main challenges for research at Niagara surprisingly did not revolve around funding research projects. The funding mechanisms through FedDev Ontario and NSERC funding had provided enough money to fund research, intake new SME projects, and looking into the future, there were several large opportunities to gain funding approaching. Rather, research at Niagara faced two main challenges: how to create a research culture in the faculty and how to fund the operations of the research office.

As with faculty across the entire Ontario college system, research has not been part of the traditional job description of the faculty. At Niagara College, the research office found that much of the research done was completed “as part of courses or just from enterprising faculty” – [Niagara employee F]. The industry demand for applied research at Niagara surpassed the availability of the faculty able to engage in research. In many instances, the timelines of the research project did not coexist neatly with faculty’s semester schedule.

Niagara was bound by the same collective agreement as the other Ontario colleges, and the research department felt that there were problems effecting the reward system for faculty since the college had to operate within the constraints of the Standard Workload Form.

And then the whole reward system around research is not there. If I'm a professor and I know that I get rewarded for teaching courses and teaching well or improving a course or improving blackboard or whatever, that's what I'll do. If
there's nothing that tells me that I'll be rewarded in my career and my career path and progression for doing research, then it's a problem. – [Niagara employee F]

From the research office’s perspective, there was not enough money from the funding agencies to support research overhead. The research office structure needed to be supported financially by Niagara College’s internal funding.

In those grants that we can get from NSERC, FedDev and all that, there is sometimes money to support project management. There's obviously money to buy off time for the faculty because that's how it works, you buy off time and pay students and for travel and IP and for networking. But there's often nothing for the office of research overhead. – [Niagara employee F]

For example, NSERC has the ARTI program; the applied research and technology instrumentation. We brought in $500,000 of instruments into the college last year, but zero of that could go towards the office of research. We wrote the proposal, got the partners, dealt with all the paperwork, all the tenders once you get the money and all of that, but there's nothing coming our way. It makes it hard that way. – [Niagara employee F]

Niagara College, overall, created an infrastructure for research, attracted a number of research grants, and developed a reputation as a research college. Even with their level of engagement in research, the college still did not have a self-sustaining model for research operations at the college.

5.2.9 Institutional research and quality assurance.

Niagara College established an institutional research position and systematized program quality evaluation in response to the changes in the accountability structures caused by the legislation. The shift in program quality accountability from the Ministry to the colleges’ boards forced Niagara to have an explicit process in place to evaluate program quality.
The Charter changed to put in a good strong program quality cycle evaluation framework. There is no doubt that it has brought more attention to it than probably would have happened if they had not been there. – [Niagara employee A]

The PQAPA audit process led Niagara College to adopt a system of continuous improvement. In that continuous improvement cycle, Niagara needed information to make decisions. In 2005, Niagara hired an institutional researcher that reported directly to the president. The institutional researcher was a key position at Niagara to implement the continuous improvement cycle.

Feedback is our friend, that we recognize the areas we do well in, we want to celebrate those; the areas we need to improve in, we want to take corrective action, and institutional researcher helps that process along. Gathering data for decision-making and analysis is something that we think is very, very important. One of the challenges in mid-sized colleges is being able to identify resources and the right skills to have someone that ensures that the tremendous amount of data that we get through KPIs and other sources are shared within the institution in a way that helps inform and improve the quality of our decision-making. – [Niagara employee D]

In addition, the institutional researcher was also responsible for putting together a majority of the accountability reporting documents required by the Ministry’s binding policy directives.

Niagara had one key position dedicated to program development, university partnerships, and program quality. That employee guided the college through the PQAPA audits, new program development, including PEQAB processes, and played a key role in establishing the program quality assurance mechanisms.
As a result of the timing of Niagara’s start in degree programming and program quality review, Niagara created its program review process based on the criteria suggested by the PEQAB model.

We actually do an external audit of all the programs every six years to seven years including bringing in people from outside the college, outside the province. In many cases, they actually look at the curriculum, look at the deliverables, and follow up in the mid-span so at the three-year cycle with a self-assessment, looking at how our performance indicators are doing, how the curriculum is meeting our ongoing vocational goals and that type of thing. – [Niagara employee A]

Niagara created a program review process and template in 2005. According to the program review template, each program needed to create approximately a 40-page document plus another 20-30 pages in appendices surveying the many indicators of program quality. The review required information coming from many sources from around the college.

Running a good program quality process and making sure the course outlines are well developed and that the course outcomes are clearly identified and tie into program outcomes so that you can actually meet that longer-term PQAPA audit process. It takes far more coordination and ongoing dialogue than it took when I joined the college. – [Niagara employee A]

The program review became more defined and included more task organization in the academic departments. The onus of completing the program reviews was on the academic deans. Many of the things which are implicit in quality such as program advisory committees, establishing curriculum committees, and following the course feedback. All of those evaluations would be downloaded to the dean. – [Niagara employee C]
In terms of operation of the entire college, it became part of the administrative culture to look at quality assurance. “I would say the whole focus on quality assurance has had a big operational change” – [Niagara employee C]. When asked “how does quality assurance affect the academic departments?”, the answer was “My work makes my priorities [the dean’s] priorities instead of not-their-priorities” – [Niagara employee].

5.2.10 Hiring and positions created.

Over the study period, Niagara increased its domestic enrollment by approximately 60%. The institution accomplished this primarily by adding new programs that attracted non-traditional students. Niagara consolidated its campuses and consolidated the vast majority of its programming onto the two main campuses. With international students playing a larger role in institutional success, the college established international offices on each of its two main campuses.

The creation of CVS, the shift of accountability for program quality to the board, and the Ministry reporting requirements directly lead to the creation of offices dedicated to program quality and institutional research. As a result, the program quality process was internally enforced. Niagara concentrated all parts of the accountability process into one accountability office with support of the institutional researcher.

As the academic departments grew in enrollment, so too did the curriculum management needs and the need for program quality. The amount of work placed on the academic department administration was too great for a single dean to complete successfully. Niagara College restructured its academic administration around 2009:

The deans were saying ‘we’re getting maxed out’. In other words, the increases over the last five, six years, created a heavy backlog. In business, the dean was
going from 60 full-time, and a whole bunch of part-time faculty, to 70 full-time and a whole bunch of part-time faculty and two new programs and preparing for a new degree in accounting and working on that. They were just getting burnt out and there was a feeling that the administrative requirements to process standard workload forms and to deal with part-time faculty and to introduce these new programs we needed another level of assistance and created the chair positions. – [Niagara employee D]

We have restructured, if you go back ten years, we only had one level of academic administrator, now we have two and the numbers have increased by about 140% so we went from about nine to twenty-odd. It has increased from that perspective and I would say two drivers, one is just enrolment numbers. The other is really that the internal environment around curriculum management and quality control is significantly more challenging than it was twelve years ago. – [Niagara employee A]

On the academic side of the college, Niagara had started to offer degrees and engage more in applied research. The combination of the two new activities has led to higher credentialing requirements on incoming full-time faculty.

We are hiring more PhD’s. It has provided an opportunity to diversify our teachers. – [Niagara employee B]

Faculty recruitment, we are increasingly looking at people with PhD’s and Master’s degrees and with some research. That has changed and that makes recruitment more of a challenge with adding on those credentials. – [Niagara employee D]

5.2.11 Section summary.

Niagara College was chosen as a case in this study because the college showed some intention to differentiate itself from other colleges in the system. It offered 2 degree programs and showed intention to do research. Niagara was considered a medium-sized college. Over the
period of the study, Niagara put much effort into growing its enrollment engaging in local economic development. The college responded to its financial accountability and program quality requirements. In terms of higher level activities, the college successfully engaged in applied research, but exhibited a cautious approach to offering degrees.

5.3 Lambton College

Lambton College was established in 1967 under the Ontario Colleges of Applied Arts and Technology Act, 1965. It is located in Sarnia, Ontario. Lambton has only one main campus and is considered to be one of the smaller colleges in Ontario.

Sarnia is a small city located in southwestern Ontario. Along with Niagara Falls and Windsor in Ontario, Sarnia is a vehicle border crossing into the USA. Oil was discovered in Sarnia in the mid-1800s (Sarnia-Lambton Economic Partnership, 2013). The first oil discoveries led to industrial development of large scale oil refining and chemical processing plants.

More recently, the oil and chemical industries have slowly been bought by foreign companies and many of the local jobs associated with the industry have disappeared. Sarnia has tried to find a new niche in clean energy including bio and solar energy. Sarnia is also a natural harbour and a shipping lane through the Great Lakes. The City of Sarnia and, as a result, Lambton College have faced problems with young adults moving away from the area to larger urban centers. Economic stakeholders in the city have partnered to create the Sarnia-Lambton Economic Partnership; the partnership’s mission being to attract new business, research, economic development, and residents to the region.

In terms of higher education, there are no other colleges or universities located in Sarnia. The closest institutions are St. Clair College and the University of Windsor in Windsor; and
Fanshawe College and Western University in London. All of those institutions are about a one-hour drive away from Sarnia.

5.3.1 Lambton’s focus over the study period.

Lambton’s focus over the period of the study has been two-fold. The first main driving force behind its actions has been financial survival and sustainability. For a portion of the study, until 2006, Lambton was reorganizing and courting funding so as to remain sustainable.

The second part has been their focus on community success. “The community involves the City of Sarnia but also involves the County of Lambton: what we mean by community development is really economic development” – [Lambton employee B].

An auxiliary part of the mission has been student success. “We are the only game in town, so there is no other post-secondary institution, and so our focus has really been on ensuring that our community has a wide range of programs, and that’s been our mission” – [Lambton employee C].

In the implementation of its mission, Lambton grew its enrollment, diversified its program mix, convinced the government to provide additional funding, and established a focused applied research portfolio. With respect to degree offering, Lambton made two successful applications during the pilot period. However, it was not able to attract enough students to sustain either degree.

5.3.2 Senior personnel.

The president remained in place over the period of the study. Dr. Tony Hanlon became President in 2002 and retired in 2012. The Vice-President Academic was Judith Morris. She held the position over the course of the study and became the President of Lambton College in 2012.
Overall, there has been strong continuity and hence mission coherence through the period of the study.

### 5.3.3 Leading into the time period.

Lambton was very much affected by the large 1996 funding cuts. An additional challenge that Lambton faced was that the local college-aged population had been declining since 1991 and there seemed to be no appreciative change in the demographic trend looking forward to 2011 (Planning and Development Services Department, County of Lambton, 2010). To exacerbate the impact of the demographic trend on the college, the provincial operating funding formula promoted growth and punished shrinkage.

In 1998, Lambton was approaching its third straight year of deficit. In response, Lambton reduced the number of deans from six to three (Lambton College, 2000). The President of Lambton served a triple-role as the Vice-President of academics and of student services as well. The other Vice-President at the institution was responsible for finance and administration. In total, Lambton had only five senior administrators, including the three academic deans.

In response to the 1996 funding cuts, Lambton had to reduce its permanent workforce and rely heavily on part-time faculty, making it difficult to retain high-quality, loyal staff (Lambton College, 1999). Lambton College’s 1999 Strategic Self-Assessment stated that the institution aimed to increase revenues through enrollment, corporate donations, contract revenues, and alumni donations. Lambton entered the time period under study with the intent to market more aggressively in order to increase enrollment and retention. Lambton decided to include recruitment responsibility in every new job posting, host many more on-campus events, and reignite relationships with the local high schools. In addition, Lambton tried to expand its enrollment pool beyond the traditional high school graduate. Lambton identified that its program
mix needed to cater to lifelong learners, meaning establishing more shorter-term programs lasting less than a year. Partnerships with well-known businesses were seen as an attractive marketing tool for prospective students. At that point, Lambton decided to partner with the Sarnia-Lambton community and increase the number of partnerships. The final part of the strategy was to lobby the government for better financial support. In summary, the strategic document revolved around developing new revenue streams (Lambton College, 1999).

5.3.4 Reaction to the charter and differentiation.

Going into 2004, Lambton College was in stasis. Much of its efforts were going into building a strong financial foundation to rebuild its institution (Lambton College, 2004). Institutionally, through its strategic plan and self-assessments, ideas of revenue diversification, capital planning, and marketing mix were already planted throughout the institution. In terms of differentiation, there was no evidence that Lambton was in search of a name change or change in classification from being a regular College of Applied Arts and Technology.

The provisions of the Charter did allow Lambton to take actions that they would not have been able to do otherwise. The removal of catchment areas allowed Lambton to potentially recruit students from outside its defined area.

The removal of catchment areas helped us. We became much more aggressive in our marketing outside the local area. And previous to the Charter, if you were going into someone else's area running ads or whatever, you would have to do a courtesy call to the president of that college and essentially ask their permission. – [Lambton employee B]

The Charter also allowed Lambton to look for new revenue streams. By allowing the colleges to search for revenue outside the implicit prescribed activities (i.e. offering
programming to support the local community), the government gave Lambton ‘permission’ to develop its partnerships and international activities.

The other thing the Charter did was to encourage colleges to look at other revenue streams besides government funding. It indirectly supported our wishes to do more international recruiting and to establish partnerships and campuses, particularly in China. – [Lambton employee B]

Finally, the Charter allowed Lambton to navigate financial transactions involving real property more easily. In Lambton’s case, they sold some property to a local developer and used the money to purchase a new student information system that supported course management, student self-service, and enterprise processes like budgeting. The new system freed up staff to do more face-to-face interactions than they had been doing in the past.

The Charter also allowed us to acquire and sell property, which the board could make a decision on. Now, the caveat to that was the minister retained the right to say what you could do with the funds that you received through the selling of a piece of property, but the ministers of the day were pretty open to a lot of different things that you could do with those funds as long as they were going to benefit students. Previous to the Charter we would have had to go to the Minister. The timelines would have been much longer than going to the board and presenting a business case. – [Lambton employee B]

The real property provision also helped Lambton to evolve more quickly.

We, then, acquired the Lambton Inn and converted it to a residence, and ultimately converted the kitchens and so on to teaching kitchens and launched some new programs there. And took the old health club and converted it into a Skilled Trade Centre. – [Lambton employee B]

The new legislation was timely for Lambton. Lambton had entered the time period of the study in financial trouble. The legislation created an environment for Lambton to transform its
operations in a shorter time frame. In terms of new academic activities, Lambton started to develop degree programs, but was unable to launch them. However, the college’s focus on development through community and economic partnerships led to beginnings of applied research at Lambton.

5.3.5 Budget.

Lambton College is one of the smaller Ontario colleges. Entering the year 2002, Lambton had an accumulated deficit (net assets were negative) and was running annual deficits, indicating that Lambton was violating the governing Ontario regulation 34/03 section 9(2). The Lambton board of governors was in a situation that required it to obtain approval from the Minister to run the deficit and to build a plan to eliminate the deficit, normally within a two-year period (MTCU, 2003). Table 5.9 shows Lambton’s net assets, operating revenue and annual balance from 2000 to 2012.

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Assets</th>
<th>Operating Revenue</th>
<th>Surplus/Deficit</th>
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<tr>
<td>2000</td>
<td>(1,157,772)</td>
<td>25,672,979</td>
<td>(743,735)</td>
</tr>
<tr>
<td>2001</td>
<td>(1,578,066)</td>
<td>24,727,132</td>
<td>(420,294)</td>
</tr>
<tr>
<td>2002</td>
<td>(454,502)</td>
<td>25,562,714</td>
<td>500,207</td>
</tr>
<tr>
<td>2003</td>
<td>(2,613,404)</td>
<td>27,556,461</td>
<td>(227,465)</td>
</tr>
</tbody>
</table>

Table 5.9

Lambton’s Annual Financial Standing, 2000 - 2012

35 The incongruence between the surplus/deficit values and the changes in net assets are due to the changing accounting practises required by the MTCU and some non-operational changes in revenue. The numbers give a general understanding of the college’s financial position.

36 In 2002-03, MTCU changed the accounting policy with respect to the accrual of employee benefits and sick leave, which had the effect of lowering the net assets of the college.
2004  (2,173,384)       29,711,321       247,313
2005  (832,237)\textsuperscript{37}  36,040,466       2,269,018
2006  960,753           35,447,342       670,692
2007  3,547,204           40,245,368       1,715,062
2008  5,205,625           42,748,167       1,388,383
2009  7,804,520           47,690,745       2,429,285
2010  10,480,236          52,765,326       2,474,271
2011  13,608,469          57,535,462       2,479,807
2012  17,190,882          62,824,418       3,417,092

Note. Data amalgamated from Lambton College’s Audited Consolidated Financial Statements (2001-2012).

Lambton’s 1999 Strategic Self-Assessment Report laid the groundwork of the changes that Lambton needed to make in order to become financially viable. The college had exhausted its attempts to lower its costs. They had already downsized the staff and the executive, addressing the college’s largest source of expenditures on the balance sheet. In 2003, under the leadership of a new president, the Lambton executive presented a financial recovery plan to its board outlining the continued negative financial situation. Lambton had an accumulated deficit of $2,613,404 and an in-year operating budget deficit. An internal study found that Lambton had several tools remaining to develop revenue or reduce costs: increasing activity and profitability in international education, contract training, continuing education, tuition short programs and other government-sponsored programs, increasing faculty teaching weeks to the maximum,

\textsuperscript{37} In 2005, MTCU changed the accounting policy with respect to the reporting of tuition revenue, which had the effect of lowering the net assets of the college.
lowering energy costs, and speeding up program renewal. However, the college still was unable to balance the budget. Lambton concluded that the problem remained on the revenue side of the balance sheet. The President started a campaign to lobby the government for an enhanced share of the Small, Northern and Rural Colleges (SNR) grant.

That from my review of the information, we didn't have an expenditure problem, we had a revenue problem. Being very familiar with the northern subsidies and funding, we discovered very quickly that Lambton was not getting close to what we believe was its fair share. In fact, the smaller and medium-sized colleges in Southern Ontario were not getting their fair share relative to the colleges in the north. Through Colleges Ontario-- or ACAATO at the time and the Ministry, we created a committee called the Small, Northern, Rural Committee to look at this issue. And after about 18 months worth of work and, to be frank, a lot of politics behind the scenes and everything else, a new funding model came into place for Small, Northern, Rural, which resulted in Lambton going from about $250-260,000 to a little over $4M a year. – [Lambton employee B]

The college started receiving the enhanced SNR grant starting in 2005. The college’s financial situation started to turn around at that time. In March 2006, Lambton came out of its accumulated deficit. Although the college’s balance sheet was now positive, the college still needed to have a conservative approach to spending and expansion for the upcoming years.

Also, in a bid to increase revenues, Lambton had developed a partnership, through licensing its curriculum, with a private college in Toronto. The private college mainly serviced international students and granted Lambton diplomas and certificates. The revenue from Lambton’s contract and international tuitions increased from $2.2M in 2004, to $3.5M in 2007, to $6.2M in 2011.
In terms of fundraising, Lambton College had a volunteer-run Foundation. In 2004, Lambton completed a $4M capital campaign. In 2008, Lambton started a new $5M fundraising campaign.

By 2011, Lambton had cleared out of its financial difficulties, started running budget surpluses, and established an accumulated net assets of $15M.

5.3.6 Enrollment, program mix, and international students.

In comparison to other colleges in the study, Lambton exhibited moderate enrollment growth. Lambton grew its domestic enrollment by approximately 14% over the ten-year period of the study. However, Lambton’s growth in enrollment was not spread over the ten years. Enrollment remained flat between 2003 and 2006. In 2007, Lambton started to see significant enrollment growth, especially with respect to its international enrollments. In 2004, Lambton had 35 funded programs and grew that number to 44 by 2011 (Government of Ontario, 2016). Around 2009, Lambton started to attract international students in a significant way. Lambton started specifically reporting its international student enrollment to its board of governors in 2009. Table 5.10 shows Lambton enrollment numbers between 2003 and 2012.

Table 5.10
Lambton Full-time Equivalent (FTE) Enrollment, 2003 -2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic student enrollment (Sarnia campus)</th>
<th>International student enrollment (Sarnia campus)</th>
<th>International student enrollment (International campuses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>2,441</td>
<td>29</td>
<td>0</td>
</tr>
<tr>
<td>2004</td>
<td>2,383</td>
<td>45</td>
<td>18</td>
</tr>
</tbody>
</table>

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Starting around 2007, Lambton starting to fix its enrollment stagnation. In times of accumulated deficit, due to the costs of developing and starting a program, there was a limit on the amount of new program development that Lambton could undertake. However, changing the program mix and creating programs to attract new markets of students, away from the traditional college-age demographic, was one of the paths to increasing enrollment.

If you create an attractive program mix, your enrolment will grow; and if your enrolment grows and you manage things properly, you start to fix your financial problems…. Previous to 2002 there hadn't been any new programming launched. The college was relying on an old set of programs. We had to develop new programming that would not only meet local needs but attract folks from outside the community, from across the province and across the country. – [Lambton employee B]

The overall intention of the enrollment strategy was to create less programming focused on attracting students graduating from local high schools going into traditional 2- and 3-year
diploma programming. The college was looking to diversify the geographic areas in which it was getting its students.

Our program mix has really changed from 60 percent local, 40 percent external to Lambton County, in fact, it’s 50-50 at this point, and that’s what we had intended to do. – [Lambton employee E]

New programming needed to be increasingly specialized. Generic programs limited where the college could get students because those programs tended to attract only local high school graduates, a market that was in decline for Lambton County.

Instead of programs like business or even general arts and science, for example, that will just draw students locally. We look at an alternative energy program, a very unique program; or digital photography. We know that has been oversubscribed throughout the province, so our understanding is that those students who perhaps wanted to go to Fanshawe might come to Lambton because they can’t get into Fanshawe. – [Lambton employee E]

Lambton found that the program mix changed the type of students that the college attracted. Lambton started to create a number of graduate certificates and accelerated diplomas geared towards attracting a new market of university graduates.

We developed programs that attract university students, so the graduate certificates. We’ve also developed pathways for accelerated programming. For example, a student who has a Bachelor of Science in chemistry, for example, could come and take our chemical production engineering technology program, which is a three-year program. They could take it in basically about a year-and-a-half – a little bit more with co-op added onto it. They do that because these are jobs where students will start at $80,000. And then soon get over $100,000, so they know that that’s a very vocationally-specific job that they will focus on. – [Lambton employee E]
The addition of apprenticeships through the creation of the Skilled Trades Centre also provided a platform for Lambton to diversify its revenue streams through program mix.

The creation of the Skilled Trade Centre was to help grow enrolment. It was to create a new revenue stream. We have 600-plus apprentices go through there every year; previously it was less than 80. It was also responding to a community economic need in working with the construction trades association, working with the unions. They [the construction trade associations] were all upset back in the day why are we sending hundreds of people to downtown Toronto for pipefitting and to Mohawk and to Fanshawe. – [Lambton employee B]

Lambton had significant international activities that the college outlined in each year’s annual report. In partnership with Jilin University in China, Lambton created overseas campuses starting with 1800 students in 2006. By 2008, it had over 4000 students using Lambton curriculum on Chinese campuses. Locally, Lambton received international students from its Chinese campuses to finish their third year of a diploma.

A large part of Lambton’s survival was through recruiting international students. Starting in 2008, Lambton focused effort into attracting international students and it became an important enough metric to include into the institution’s annual report. By 2011, Lambton had hired a dean of international focused on building programs to attract international students.

However, the idea about launching our own credentials through board of governor certificates has also offered us a lot of opportunity to attract a great number of international students to the campus. Our international population has gone from about 90 students from our Chinese partners to over 600 students principally from India and some from Nigeria. – [Lambton employee A]

Lambton also partnered with a private Toronto-based college; the private college leased curriculum from Lambton and was able to grant a Lambton diploma or certificate. The
curriculum was mainly shorter-term programming created intentionally to attract international students. The revenue from the international partnership played an important part in bolstering Lambton’s budget. “If you talk to people in our finance department, they’d mention that international revenue streams have underwritten some of our post-secondary domestic programming and our student services” – [Lambton employee B].

5.3.7 Degree activity.

In 2000, Lambton began the creation of two degree programs: Environmental Health and Safety, and Instrumentation and Control. Both programs were submitted in the second round of the PEQAB pilot program and received approval from PEQAB and the Minister. The two programs, in the end, were granted ministerial approval, but never ran. None of the interview participants of this study had first-hand experience of the degree applications that Lambton submitted in 2000.

In 2012, Lambton was not offering any degree programs. Table 5.11 shows Lambton’s history of degree development and which programs were running as of June, 2012.

Table 5.11

Listing of Lambton’s Program Applications to PEQAB

<table>
<thead>
<tr>
<th>Degree name</th>
<th>Application date</th>
<th>Permission granted</th>
<th>Running</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Applied Technology – Environmental Health and Safety</td>
<td>Nov 2002</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bachelor of Applied Technology – Instrumentation and Control</td>
<td>Nov 2002</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Note. Data gathered from PEQAB Annual Reports and Lambton’s program websites.
Lambton’s foray into degree development was very risky for the institution. The institution was under enormous financial and human resources strain at the time. In hindsight, local observers found that trying to offer the degrees in the first place may not have been the best choice for Lambton under its circumstances.

When the opportunity came to be able to offer a degree, I think almost every college jumped at the opportunity without really thinking it out -- what was the right degree, what was the demand for that degree and can we financially afford to offer it on a long-term basis. We gave up resources in other areas and put them into those two major degree proposals, and they assigned a faculty member and a couple of support staff and they had -- I think they hired someone on contract. – [Lambton employee B]

The consumption of resources that went into degree development between 2000 and 2002 had the secondary effect of not allowing the college to develop any other types of programs in that period.

They let other things slide at the expense of these two degrees. There was no real new program development here in the previous four years that I could see. They put all their marbles in the one can and went for it. I think they might have been caught up in the prestige that a college gets with a degree. – [Lambton employee B]

The Environmental Health and Safety program was marketed for two different start dates but could not attract enough students to get started. The Instrumentation and Control degree was never attempted because of the overlap with what was arguably Lambton’s most successful diploma program.

The [two degrees] were not probably the best choices to launch here at Lambton. We attempted twice to get [the environmental degree] off the ground and couldn't because of enrolment demand. The instrumentation program, the issue was that
we had a very strong instrumentation three-year technology program. And no one could explain how the degree program did not cannibalise the technology program. – [Lambton employee B]

After the initial attempt and failure to start the degree programs, there seemed to be very little discussion at the senior administrative level about offering degrees at Lambton.

5.3.8 Applied research.

The timing of the applied research mandate coincided well with Lambton’s overall strategy. In 2003, Lambton was looking to further diversify its revenue streams and had a strong program with tight industry connections when applied research was added to the Charter. Lambton College was able to identify a research focus by 2004. By 2012, Lambton had streamlined its ability to create research grant applications and was achieving great success in comparison to other colleges. Table 5.12 shows Lambton’s applied research milestones.

**Table 5.12**  
Lambton’s Major Applied Research Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Funding body</th>
<th>Amount</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>OIT</td>
<td>$722,000</td>
<td>With Lanxess to create the Advanced Materials Engineering Research (AMER) Lab</td>
</tr>
<tr>
<td>2007</td>
<td>Creation of the Dean of Research position and the Office of Applied Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>OCE</td>
<td>With Lanxess to operate the AMER lab</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>CONII membership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>NSERC CCIP</td>
<td>$2.3M over 5 years</td>
<td>Renewable Energy asset optimization</td>
</tr>
</tbody>
</table>
2009 NCE-CECR $1.25M over 5 years Sarnia Research Park/UWO, Lambton’s share of $15M

2010 NSERC ARTi $44,200 Green Hydrogen production using Titania Nanotubes and Microalgae

2010 NSERC ARTi $125,000 Renewable Energy and storage using Electrolysis and Hydrogen Fuel Cells

2011 FedDev ARC $230,700 Funded smaller commercialization projects with SMEs

2011 NSERC ARTi $49,952 Equipment to support Aerobic Bioreactor Landfill Technology Research

2011 NSERC ARTi $28,565 Gasification of non-woody biomass in a small gasifier

2012 NSERC IRCC $200,000 Advanced Industrial Process Optimization and Control

Note. Data gathered from NSERC awards database and Lambton’s annual reports.

One of the main reasons to start a research agenda at Lambton was to create another revenue stream. Historically, Lambton had a strong relationship with the chemical industries in Sarnia. Funding cuts pushed Lambton to search out new opportunities.

One of the strengths Lambton has and definitely had was the labs that we have down in the technology wing especially for a college of this size. Marry that with the opportunity to create another revenue stream and the opportunity to increase the profile and the reputation of Lambton College and you have all the elements of a new business stream for us, that being applied research. We looked at our faculty members and we had the opportunity to recruit a retired research scientist from the Valley, PhD. He had a teaching assignment, but he was also asked to see if he can get us a project or two. He had strong links with the University of Waterloo and the University of Toronto. – [Lambton employee B]
By 2003, Lambton had already developed an Office of Applied Research and Development. In reality, much of the research office mandate was run by the Dean of Technology in addition to their regular job. The first significant accomplishment of the research mandate happened in 2004 when Lambton, in partnership with a chemical company named Lanxess, received $720,000 of Ontario Innovation Trust (OIT) funding to create the Advanced Materials Engineering (AMER) lab. The AMER lab, then, received an Ontario Centres of Excellence (OCE) grant to fund its operation in 2007.

By 2007, it was evident that Lambton College was able to attract bigger dollars for research by itself. In order to do so, the institution needed NSERC approval. It was imperative to create a stand-alone office of applied research. The applied research grants were getting much bigger, more complex, and required specialized reporting.

Lambton needed an office of applied research. Somebody that would be responsible for ensuring budgets and reporting were done in the appropriate manner. Assisting with the identification of possible funding envelopes, identifying and helping with the completion of the funding envelopes, we needed a proposal writer which we have full-time, which is a professional proposal writer which helps give the proposals the look and the professional finish that successful proposals require. Without those investments, we would not have been as successful as if we were saying to our faculty on the side of their desks, oh, you go find some money and you go fill out the report and if you happen to get money, we’ll release you to do the research as opposed to having those structures in place. Plus, having project managers working out of the research office to ensure that the projects were on time, delivering what was expected in a timely manner and then ensuring that the information was collected for the reporting structures, that’s what made it work. – [Lambton employee A]

In a second thread of applied research, Lambton College worked closely with the Sarnia Lambton Economic Partnership (SLEP) to develop new industries and expertise to aid the
economic vitality of the region. Part of the SLEP strategic plan involved attracting new immigrants to work in the region, and reinventing some of the products coming from the traditional industry base (Sarnia-Lambton Economic Partnership, 2013). SLEP, with Lambton College being one of the major partners, applied for and received $500,000 of provincial funding for hydrogen fuel cell development for deploying fuel cell vehicles and battery backup (Government of Ontario, 2007).

Alongside the hydrogen fuel cell project, Lambton developed other relationships at the SLEP. Through contact with the director of the Western University Sarnia Bio-Innovation Research park, Lambton played a supporting role in an NSERC Center of Excellence for Commercialization and Research grant application. The successful application received $15M over 5 years, of which Lambton was allocated $1.25M starting in 2009.

The CONII program, a province-wide program to fund research offices and SME projects at the colleges, provided further support for Lambton’s research office. Lambton gained CONII membership in the second round of CONII funding in 2009, and used those funds to maintain a stand-alone office of research.

In 2011, Lambton was awarded $230,700 in FedDev support. In effect, the funding allowed the college to partner with local Small-to-Medium Enterprises (SMEs) to solve applied research problems without having to directly apply for new funding envelopes for each project. The FedDev grant supported five different SME projects.

Although research became a larger priority for the college as an institution, the research itself was segregated within the college. The research office was located off the main campus. Almost all research was done by faculty in the School of Technology, and even within the
School of Technology, the Dean of Technology in 2011 estimated that only 10% of the School of Technology’s faculty had participated in applied research projects.

Prior to 2005, applied research projects were mainly staffed by three professors. By 2011, there were between 17-20 researchers associated with applied research. As observed by the Dean of Research, “the other thing that happened is that a lot more Ph.D.’s and [professional engineers] just have been hired. I think in Technology we have seven or eight Ph.D.’s and [professional engineers]” – [Lambton employee]

The ongoing support of the School of Technology was essential to the success of the applied research mandate at Lambton. Applied research, for the most part, needed faculty to supervise and complete research projects. The success of applied research depended on the cooperation of the Dean of Technology. The Dean of Technology was responsible for arranging for faculty release time from the teaching load which had many repercussive effects.

Because when they [the academic dean] essentially agree to one of the faculty members to do research and this faculty member is freed up … Then they have the load of hiring a replacement, and if that replacement is somebody who has not been working at the college before, they have to have an orientation, have to be evaluated at some point … Might require extra guidance … And so on and so on. So there certainly is a workload that’s not directly recognized. For NSERC and others, we essentially [have to build the faculty schedule twice] to document that. We have to build a teaching schedule as if the person is not doing research. … Then build a new one, with the replacement time. – [Lambton employee C]

At the end of the period, Lambton started using other NSERC programs including the Applied Research and Technology infrastructure (ARTi) grants, and in 2012, Lambton was awarded an Industrial Research Chair to dedicate towards developing applied research in the area of “Advanced Industrial Process Optimization and Control.”
5.3.9 Institutional research and quality assurance.

Prior to creating a quality assurance department, there was not a lot of data available to make informed choices at Lambton. “There was a complete absence of a lot of data. It was difficult looking at service areas and also looking at retention rates and programs, it was difficult to make decisions on hard data” – [Lambton employee B]. Prior to the legislation, Lambton College had not instituted formal program reviews.

I think always that quality has been important to Lambton and to its people and that we’ve always strived to and taken pride in producing a quality product. We had elements of quality assurance, but, frankly, we didn't have policies and procedures and reports to the board on a regular basis. So, all that happened. The government moved accountability out to boards, they moved it out to the system as a whole and they told the system you have to get something in place. And it's the old…if you don't do it, we'll do it. – [Lambton employee D]

Between 2002 and 2008, Lambton had not created institutional-wide quality assurance processes. However, Colleges Ontario had created PQAPA and Lambton needed to be audited by the process. Lambton responded by putting formal systems in place. Lambton moved to a much more formalized system, creating an office of Quality Assurance and Institutional Research in 2008. Prior to 2008, Lambton had to spend a significant effort in addressing its financial situation and did not dedicate resources to creating an administrative position or an office.

The institutional research and quality assurance functions at Lambton ran out of one office where there was one director and two full-time staff who were responsible for completing the majority of the program review documentation. In terms of reporting, the President of the college needed to report to the local board of governors. Beneath the President was the Quality Assurance Council, which looked at the reports produced by the program and service review teams. The role of the Office of Quality Assurance and Institutional Research was to create the
overall structure of Quality Assurance at Lambton, including creating an annual plan, organizing the respective program and service review teams, and assisting the teams with the reviews. Administrators, faculty, and staff from each program and service areas in the college were involved in the process. Consequently, this process involved a vast majority of the people in the college.

In terms of the QA, it’s changed the role, not the role, but it’s changed the life for the deans because there are much more explicit QA expectations that they have to meet. The additional requirements on the departments, both the dean and their folks, they simply have had to absorb the requirements. – [Lambton employee D]

The Institutional Research and Quality Assurance department focused on program review. Responsibilities for guiding in program development were part of Lambton’s Learning Innovation Center’s (LINC) mandate. Lambton’s LINC created “formal processes for mapping and documenting the programs and their curriculum. Even down to individual programs are expected to have program curriculum committees now and that they meet formally and be formally documented” – [Lambton employee D].

However, in 2011, the PQAPA requirements broadened to include all credentials that Lambton offered.

The requirement from PQAPA now is that anywhere we issue a credential, it has to be now under the QA umbrella. Before our Board of Governors certificates were not; now they will be. So, one of the things I have to rethink and this institution has to address next year is how do we bring all of our international operations and our Board of Governors certificates into the QA process. We won’t be able to do it with the current resources, that there’s going to be budget implications here. – [Lambton employee D]
5.3.10 Hiring and positions created.

The study period for Lambton can be broken into two sub-time periods: before 2007 and after 2007. Before 2007, Lambton’s focus was to be financially solvent. There were restrictions on the amount of hiring or new activity that the college could be involved in. The choices and mission expansion needed to be weighed in terms of finances. At the beginning of the study period, Lambton had a president that acted as the Vice-President Academic and Student Services as well, a Vice-President of Finance and Administration, and three academic deans. The deans were stretched thin. One dean…

had the Dean of the School of Health Sciences. He had the Dean of Contract Training and Continuing Education, and he had the Dean of International. All of them were floundering. Well, if you sat back and looked at this you've given the man mission impossible. You've spread him so thin that nothing is working. – [Lambton employee B]

The major actions, in terms of structure, that happened at Lambton prior to 2007 were the hiring of a Vice-President Academic (2002), the creation of the Office of Applied Research (2006), and investment into the Lambton Skilled Trades and Training Center (2005).

In 2008, Lambton put new resources into quality assurance, new program development, and marketing. Quality assurance mechanisms were directly mandated out of the legislation and Lambton created a full internal governance structure to respond to the need for internal quality assurance. The office, as of 2011, had two full-time employees, but the process added a workload to many people at the college, especially at the dean-level.

Lambton’s substantial operations in China needed their own infrastructure. Lambton had more students in China than they had in Ontario. All of the registrations and record-keeping were occurring at Lambton. According to the PQAPA auditing requirements, anywhere that Lambton
was granting a designation needed to be audited by its quality assurance process. As a result, leading into 2012, Lambton’s quality assurance needed to expand to help with the increasing quality assurance requirements.

In 2007, the three-academic dean structure still existed; the enrollment had not grown by that much. However, the role of dean had changed with Lambton’s aspirations.

And the faculty were wondering why [the dean] never talked to them. It didn't happen overnight but over time we knew we had to add resources at the dean level. Even the union faculty president said there was not enough management at the dean level. And I was sitting here; I had just about fell off my chair. She was right and it didn't take a rocket scientist to figure that out. In summary, a greater profile out in the community, in the province, better communication with your faculty. Those are the major changes we expected of our deans. – [Lambton employee B]

In 2011, Lambton restructured its administration to have five academic deans. The Office of Applied Research had attracted enough resources and needed its own infrastructure, so it was moved from the Dean of Technology’s portfolio. Between 2005 and 2012, apprenticeship grew from 90 students per year to around 600. The number of part-time students grew from 2500 to 6500, and the number of international students on its Canadian campus grew from a negligible number to over 350 students per year. The number of programs grew from 45 to 65. Overall there was significant enrollment growth of all types during the study period.

5.3.11 Section summary.

Lambton was chosen as a case in this study because there seemed little intention to differentiate itself from other colleges in the system. It offered no degree programs and showed limited intention to do research. Lambton was the smallest college in this study, approximately
the size of only one Seneca academic department. Over the period of the study, the college spent much of its effort bettering its financial position and engaging in local economic development. The college responded to its financial accountability and program quality requirements. In terms of higher-level activities, the college successfully engaged in applied research but did not offer any degrees.

5.4 Analyzing the Institution: Institutional Change at Three Ontario Colleges

The changes in legislation in the Ontario Colleges of Applied Arts and Technology Act, 2002, and the Post-secondary Education Choice and Excellence Act, 2000, as discussed in chapter 4, laid the foundation for changes in the Ontario college system and the institutions within it. The system moved from a highly state-controlled governance mechanism to a more self-regulative mechanism, placing financial and program accountability mechanisms more under the control of each college’s local board. The new legislation allowed the colleges to engage in new activities that traditionally were solely within the realm of the Ontario universities and not of the colleges, namely applied research and degrees in applied areas. Colleges that were able to do so, tried to engage in degree offering and applied research and differentiate themselves from other colleges in the system.

Seneca College, Niagara College, and Lambton College represent three colleges on different trajectories and facing different challenges within the Ontario college system. Seneca exhibited strong indications that they wanted to differentiate. By 2011, Seneca College offered ten or more degree programs, and exhibited evidence that research was important to its strategic direction. Niagara College showed some usage of the legislation to differentiate. By 2011, Niagara offered a limited number of degrees (two) and exhibited evidence that research was important to its strategic direction. Lambton College seemed to show limited usage of the new
activities provided by the legislation to differentiate. By 2011, Lambton offered no degree programs and seemed to have little interest in research from the criteria that were used in this study. However, Lambton did have a substantial interest in performing applied research. In Lambton’s category for the case selection for the study, two colleges declined participating in the study prior to Lambton’s acceptance, citing a lack of resources. Although it was not the direct intention of the case selection, the three colleges mapped to being large, mid-sized, and small colleges within the system.

Some of the new functions for the colleges were mandatory to implement. Some of the new functions were optional. All colleges in the system, and hence in this study, had to create mechanisms to deal with the new material-resource environment, combined with the new accountability structures focused around each college’s local board. However, in terms of optional functions, colleges needed to make decisions around actively engaging in degree offering and applied research. All of these new potential functions altered each college’s institutional environment.

5.4.1 Financial accountability.

The funding cuts in 1996 were a precursor to the paradigm change of public institutions being more self-reliant. The government overhauled its relationship with the colleges. On the revenue side, the government started the period by lowering operating grants. On the expenditure side, in 2008, the government moved the control of collective bargaining, the largest expenditure for the colleges, to the purview of Colleges Ontario. In terms of transactions, the government no longer needed to make direct approval of the colleges’ transactions. The colleges were in the financial situation in which they had to make decisions on how to diversify their revenue sources
away from public funding, decrease their expenditures, and make financially responsible decisions.

There was a shift in the material-resource environment. The legislative changes moved towards a more self-regulating mechanism of governance, pushing operating decisions away from the state down to the local institutions. All of these changes forced the colleges to adopt a more entrepreneurial mindset with regards to their programming and services.

Each of the colleges were in different financial positions at the beginning of the study period in 2002. Seneca College and Niagara College had large accumulated net assets in 2002, both having approximately 20% of their annual operating revenue. Lambton College, on the other hand, had an accumulated deficit. Each of the colleges, though, faced the challenge of lower governmental financial input and started exploring ways of diversifying their revenue sources. The logics that governed the colleges’ financial approach changed; the colleges now owned their operations and financial destiny.

It was important for each college to have the correct balance between revenues and expenditures. Going into 2002, the colleges reduced their cost base. Seneca and Lambton reduced their staffing drastically. Both Seneca and Niagara had many campuses scattered through their catchment areas which led to redundancies in services and hence cost inefficiencies. Both of the colleges consolidated their academic programs to their larger campuses.

In terms of workforce cuts, Seneca and Lambton cut many administrative, staff, and faculty positions leading into the period. All three colleges, including Niagara, had started the period of the study with a relatively lean workforce.
In terms of revenues, the three colleges in this study demonstrated entrepreneurship in terms of the programs and services they offered. The three colleges started offering academic programming targeting new student markets and applied research reaching out to industry and government grants. The colleges in the study had to adjust their program mix away from two and three-year diplomas and offer alternative programming types; this was especially the case for non-GTA colleges where the traditional high school graduate demographic was decreasing. Both Niagara and Lambton explicitly mentioned that having the correct program mix and focusing on enrollment growth were one of the main paths out of their financial difficulties.

Also, the demand for higher level industry-focused programming was increasing. The main determinant of the type of student that a college receives is program mix. Degree programming is geared towards students who traditionally do better in high school. Graduate certificates are geared towards university graduates, domestic and international. One-year certificates are geared to students looking for work immediately, unemployed individuals, older students, and working professionals, looking for a change in careers.

All three colleges added to the number of programs that they offered. Lambton started a significant presence in apprenticeship training, shorter length Ontario certificates, and more specialized diploma programming. Niagara added programming of all types, including graduate certificates, diplomas, degrees, and one-year certificates. Seneca significantly added degree programs, one-year certificates, and graduate certificates to its program mix.

All three colleges tried to create programming that attracted international students. As a result, all three colleges needed to build International departments that helped with recruitment and student services. Seneca, located in an immigrant-dense area, naturally attracted a high number of international students, about 15% of total students. It had already established an
international student presence from the outset of the study period. Niagara College identified a strategy to attract international students by changing its program mix and intentionally reaching out to international students, which became about 10% of its total enrollment. Lambton established a presence with international students in China. However, the college only started to attract international students to its Canadian campus in about 2010. As of 2012, Lambton’s international enrollments accounted for less than 5% of its total enrollment. Lambton had started creating programs and partnerships with the direct intention of attracting international student tuition.

In addition to creating programs to attract new student markets, the colleges developed other revenue-generating activities. Applied research was explicitly intended to be a revenue-generating activity for all three colleges in the study. The nature of applied research meant that the colleges needed to develop products that could be commercialized. The implication of having a successful applied research arm was the development of partnerships with external parties such as universities, community organizations, and companies. Niagara started its applied research stemming from a relationship with General Motors and grew to involve more individual industries in its region. Lambton started its applied research with its contacts with two universities and Lanxess. The relationship with the Sarnia Lambton Economic Partnership later, also led to projects and grants. Seneca already had a close working relationship with York University and a number of industry partners before the beginning of the period. During the period, a large source of projects was the Markham Innovation Synergy Centre.

In finding unique revenue generating opportunities, all three colleges found unique resource-intensive services that generated revenue. Lambton College developed relationships with third-party institutions to offer its curriculum. The two main relationships were with Jilin
University in China and a private institution in the GTA. Niagara College created a concept called the Learning Enterprise that created businesses around its programming to offer goods and services to the public. Seneca further sought revenue by stratifying the system by applying for ITAL status, proposing the Seneca: Leading the Way Again plan, hiring a lobbyist for federal research grant dollars, and joining Polytechnics Canada.

In terms of financial accountability, all three colleges behaved in a similar way. All three diversified their programming to attract new student markets, started more partnerships to aid in resource development including applied research, and experimented with alternative ways to find revenue. Each of the activities that the colleges entered introduced new workload either to the existing structure or required an entirely new supporting organizational structure, in effect creating new decision-making processes and changing the institutional logics of each institution.

5.4.2 Program accountability.

The government granted the colleges more autonomy to govern their own academic programs, and as a result, the college system and each institution needed to have a process to assure quality. At the system-level, Colleges Ontario and the Ministry added the PQAPA process as a type of self-regulating mechanism. The process needed to be implemented at the individual college level. The idea of greater autonomy to develop programming was consistent with the expanded roles of each college’s board of governors.

PQAPA, enforced a uniformity amongst the colleges in terms of processes; all three colleges adopted a form of a program quality assurance model that was supported by an institutional research person or department. The process was centrally controlled within each institution holding each level of the academic hierarchy accountable. At Niagara and Lambton, the program accountability departments were confident as to their role of making the quality
assurance built into everything the college did. Prior to the changes in legislation, Seneca seemed
to have program quality as part of the conversation already. However, the chain of accountability
ended at the dean of each academic department. The changes in process forced Seneca to
centralized the process and end the chain of accountability at its board of governors.

Degree-granting colleges had an external process for program quality to contend with, in
the form of the PEQAB consent renewal process. Niagara and Seneca, which both offered
degrees, had created internal program quality procedures for all of their programming that
mirrored the PEQAB requirements for consent renewal. Both colleges viewed the redundancy of
the PEQAB consent renewal process as unnecessary bureaucracy and resource consumption.
Niagara only had two degrees, so consent renewal processes were absorbed by the existing
program quality structures. However, at Seneca, the college had started to do several consent
renewals per year, and therefore had to expend considerable resources and expand its structure to
support those processes.

Each of the colleges made similar changes in internal structure. They each created similar
structures of varying capacities for quality assurance. In all cases, oversight of program
accountability shifted centrally to the college where the Quality Assurance department
determined the schedule for each program’s review. Each of the colleges created documentation
centrally to do program review; however, much of the workload was downloaded to the
academic departments. At Seneca, Lambton, and Niagara, the definite focus on quality assurance
was newly introduced to each college’s logics.

5.4.3 Degree activity.

The initial era of degree development in the Ontario college system was interesting. Only
three of twenty-four colleges decided not to make an application to offer degree programs
Appendix C has a listing of submitted degree program applications. In the mix, Seneca applied for four degree programs, Niagara applied for two, and Lambton applied for two. However, the result after ten years of activity stratified the colleges in this study. Seneca offered ten degree programs, Niagara started two and Lambton did not offer any degree programs.

Offering a degree program was a challenging prospect for most colleges. Colleges found two aspects of the degree process difficult to overcome; first, the limited financial and resource capacity of the colleges to put into degree development, and second, the ability to attract and retain students into niche degree programs. In terms of financial resources, Seneca had the most flexible financial situation of the three colleges in the study. It was able to put resources into degree development. Niagara was on firm financial footing as well. However, its surplus was in the range of only $1-5M per year. Any decision to pursue further degree development could have consumed a large percentage of that surplus or redirect funds from another activity. Hence, at Niagara, degree development was monitored and limited. Lambton College was in financial straits and its administration, after the initial applications, decided not to pursue further degree development.

All three colleges faced issues recruiting students into its niche degree programs. Seneca was unable to attract enough students to launch its Control Systems program, nor enough students to sustain its Integrated Environmental Sire Remediation degree. Similarly, Niagara could not launch its Photonics degree and Lambton could not launch its Environmental Health and Safety program. Seneca did find success in launching many other degree programs and continued to do so.

In terms of creating organizational structures to support degree offering, Lambton did not have the need and was unaffected by the ability to offer degrees. After the two degrees at
Lambton College failed to launch, degree offering was not part of the conversation. The college did not have any degrees; they were not developing any degrees. They did not change institutional actors within the institution, nor did they have governance processes directly related to degree offering. The ability to offer degree programs had a limited effect with the Lambton institution.

At Niagara College, offering degrees did have an impact on the institution. As of 2012, Niagara offered two degrees. The resource is directed towards future development and consent renewal was limited. Niagara did not create specific centralized organizational structures specifically to support degree offering. However, the ability to offer degrees did appeal to the prestige motive of Niagara as they did want to differentiate with a new institutional title such ITAL or polytechnic. Niagara also wanted to develop more degrees in the business department so that it could offer multiple degrees off of a common core of courses to lower the overall operating costs per student of the programs.

There are two lasting artifacts of degree offering at Niagara College. First, the program review process they adopted was based on the PEQAB review criteria. Second, degree offering introduced a secondary logic to the Niagara College environment. The degree granting logic still exists within Niagara, as it is still an option for them to consider as they are making program development decisions. However, it did not become dominant. Actors at Niagara seemed to find that the offering of degree programs was in conflict the other mandates at the college, including the access mandate, financial responsibility, and hands-on applied learning.

At Seneca, degree activity has had a significant impact on the college. Seneca proposed two degrees in each of the two pilots. The degree development was led by the administration and part of the academic plan for Seneca. As a result, arising out of the pilot, Seneca had four
degrees approved by PEQAB and was able to launch all four of them. Seneca applied for and obtained an ITAL status which allowed it to offer 15% of its programming in degrees. From then Seneca has pursued nine more degrees. As with all other programming, some degrees were successful and a small number were not able to attract a sustainable number of students. At the end of the period of the study, Seneca had applied for 13 degrees and was running ten degree programs comprising of 1110 students, 7.2% of the student body. Seneca had programs in business, technology, health sciences, community services. The number of degrees that Seneca offered reinforced its belief that it was doing something different than many of the other colleges in the system.

The PEQAB requirements and the degree mission had a large effect on Seneca College. The requirements pushed Seneca to build an organizational structure and governance processes that supported degree development and maintenance. The college put a lot of resources into program development and consent renewal processes for the degrees.

Furthermore, for the college, it could not predict which program areas would turn into degree programs, so Seneca made the Ph.D. the preferred credential to hire in general areas of study that could possibly support a degree program. This hiring approach which was used for new hires and to replace retiring faculty created a slow change in the makeup of the faculty.

At Seneca, degree granting has had an effect on the college’s organizational structure, its hiring policies, the types of programs it develops, and its view of itself in relation to other colleges in the system.

For all three colleges, the development of the first degrees at each college was an exploratory process. The colleges did not understand how degree programs would fit in their institutions. Each of the tasks, from concept to implementation, was a new process for each
college. The uncertainty of the expectations, process, and outcomes led to much deliberation and planning within each college. The PEQAB application was rigorous and tedious and needed to be implemented in a short time frame. Thirty-eight applications were approved by PEQAB. However, only twenty-three programs were able to attract enough students to be sustainable.

Degree programming had the potential to affect the governance processes, institutional actors, and institutional logics of all colleges. However, the degree mission had varying affects across the three colleges in this study. Seneca significantly altered its institutional environment in response to degree-offering. Niagara College, offered a couple of degrees, did not alter its actors, and maintained resistance to the new logics introduced by degree-offering. The institutional environment of Lambton College was largely unaffected by the degree mission.

5.4.4 Applied research.

All three colleges in this study were successful in creating an applied research office and attracting federal grant dollars. I had the theoretical misfortune of studying three colleges which aggressively pursued and achieved success in the applied research realm. The intention of the case selection was to choose a college that did not intend on developing its research capacity. However, in the category of colleges with no research intention, several colleges that were approached did not have the resources to take part in the study. In 2011, Lambton had already developed applied research capability but did not advertise it extensively.

Each of the colleges introduced applied research to find another avenue for revenue. As mentioned above in the financial accountability section, the colleges needed to develop a number of partnerships with universities, community organizations, and companies to develop their applied research capacity. However, each college approached its applied research activities somewhat differently.
Seneca looked to build applied research capacity across the college and the college system. Seneca’s approach was to create the infrastructure and support systems to support many different avenues of research and then try to attract faculty into the forum. At the highest level, though, there seemed to be no distinct plans created for the implementation. At the Board of Governors level, there was no conversation about the implementation of applied research. Rather, the direction of conversation, at the board level, was that applied research was to bring a new source of funding. Seneca started its path by establishing an Associate Vice-President to handle its applied research mandate. Seneca lobbied the provincial and federal governments for system funding. Through Ontario Research Commercialization funding, the college system, with Seneca playing a leading role, established the CONII network so that colleges could develop their research offices and gain track records of completing projects with SMEs. In order to access the larger, more reliable federal grants for the system, Seneca hired a person to lobby the federal government to build research grant programs directed toward the college system. Internally, Seneca created a number of programs for faculty-initiated projects. Seneca was awarded its first two major NSERC CCIP grants and started to receive funding from those grants in 2009. Seneca attempted to build its applied research capacity using a ground-up approach by trying to promote applied research to its faculty across all departments of the college. As result, the Seneca leadership tried to create and enforce a new logic across the institutional around doing applied research.

Niagara College’s applied research capacity of applying for and delivering projects started many years before the legislated mandate for applied research. Niagara had developed a partnership with General Motors and successfully applied for a number of Strategic Skills Investment grants from the provincial government in relation to the GM partnership. Niagara
subsequently partnered with other organizations to attract a number of Strategic Skills Investment grants. Niagara, as a result, was able to create a successful grant application in the NSERC CCIP pilot program in 2006. The grant was spearheaded at the president- and vice-president-level of the college. After receiving funding, Niagara established a center dedicated to completing the research projects within college. As a result of the Strategic Skills Investment grants, there was college-wide exposure to applying for project funding. Niagara’s success in applied research was a carryover from its success in applying for targeted project funding. Over the period of time of the study, Niagara developed specific logics and organizational structure around applying for grant money.

After the initial CCIP grant in the pilot, Niagara received federal grants in photonics, manufacturing, agriculture, hospitality, and tourism in a wide range of subject areas. Niagara hired its first Associate Vice-President position, in the area of research in 2010. By 2011, Niagara employed more than ten people directly related to the applied research department. Applied research became one of the primary logics in achieving its mission among Niagara’s leadership. Within the faculty though, Niagara still had challenges attracting faculty to do applied research as part of their job activity.

Lambton’s entry into applied research was also driven in search of new revenue. The college’s approach was started at the presidential level. The beginning of applied research was not extended out to the entire Lambton College community, but was targeted to a specific faculty and set of programs. The college hired a researcher/faculty, with industry and university connections, who was interested in starting research projects at Lambton. The first project was in partnership with a large local company and extended into two grants. Lambton supported the other developments in its applied research portfolio through its relationships within the local
economic development consortium. Lambton’s research program was very intensive and focused around chemical processes, biotechnology, and sustainable energy. The majority of people involved in the applied research program at Lambton have mainly been part of the technology programs at Lambton. Furthermore, the applied research office and labs were located off the main campus. Changes in logics at Lambton were mainly within one department and a select number of faculty. Applied research did not affect the overall conversation at the college; the effects were very localized.

By 2012, there were only 15 Ontario colleges that had received CCIP grants from NSERC or SSHRC. See Appendix D for a listing of colleges that received NSERC CCIP grants over the study period. All three colleges in this study created significant research programs in comparison to other colleges in the system by 2012. All three colleges started their applied research approach starting at their senior administrative levels, as opposed to at the faculty level. The objective of the applied research activity was to generate revenue.

All three colleges had built an organizational structure and assigned dedicated physical space to house their applied research operations. The governance and organizational structures between the three colleges were similar in functionality. However, the way that the institutional logics changed per institution differed. Lambton introduced institutional logics surrounding applied research in an isolated way. Niagara initially found success in photonics and visualization and applied it to many of its local industries (manufacturing and agriculture). However, as the research mission gained traction, Niagara developed grants for their Culinary and Hospitality areas, which by then included many of their programs; the success of applied research has pervaded through the college, changing the overall institutional logics. Seneca started by increasing participation in applied research and growing its capacity to support and
deliver projects. The college has been successful in increasing the conversation around applied research. Seneca found success partnering with SMEs, and applying for larger grants through NSERC.

Seneca and Niagara felt that their applied research activity had differentiated their colleges enough that they required new labels to reflect the change in their programming. Both colleges were pushing to be recognized to be something more than a college.

5.4.6 Section summary.

It was observed that all three colleges were in similar positions with respect to the new financial accountability mechanisms. All three colleges worked to diversify their revenue streams: by changing their program mix, creating new partnerships, and engaging in applied research. The changes in program mix reached out to new student markets, including international students, university graduates, and lifelong learners. The addition of these new student markets led to greater college infrastructure needs in marketing, student services, and academic administration. New partnerships usually involved the input of the academic departments.

In terms of program accountability, all three colleges made similar organizational changes. Each college created a centralized department dedicated to program review and development. The department established a centralized program review protocol that was mandatory for all programs at the college to follow. All three colleges found that the program quality processes had become institutionalized. Each college created decision-making processes, added institutional actors, and enforced the necessity of program review amongst all programs.
In terms of financial and program accountability structures, all three colleges made similar changes to their institutional environments, in terms of governance structures, institutional actors, and institutional logics.

In terms of degree offering, the three colleges behaved very differently. Seneca College, the college case selected because of its intention to differentiate, built many degree programs. However, degree-offering had a substantial impact on Seneca’s institutional environment. The process of degree-offering altered the organizational structure of the college, changed hiring practices for faculty, and added a significant workload for the academic departments.

Niagara College, the college case selected because it may want to differentiate, did not change its institutional environment drastically. Although Niagara offered degrees, Niagara’s institutional logics and organizational structure were relatively unaffected by the activity. The college wanted to be associated with higher level activities and higher credentialed faculty, but was conflicted between the higher-level activities and the traditional mission of the college.

Lambton College, the college case selected because it showed no intention of wanting to differentiate, did not build degrees and was largely unaffected by them. Lambton, by the end of the study period, did not have internal conversations regarding degree offering.

In terms of applied research, all three colleges had received multiple federal research grants. They were among the most successful colleges in the Ontario system with respect to grant applications. Successful applied research activities required a dedicated applied research office, hence altering each college’s organizational structure. The approach that each college took towards adopting an applied research function affected the way that the institutional logics changed at the college. At Seneca, there was an attempt to involve all faculty in applied research. Seneca received two grants, one in aviation and the other in software. At Niagara, there was a
history of applying for external grants across the different departments at the college, and working in partnership with local industry. Niagara’s federal research grants spanned multiple academic departments. Applying for grants, be they research grants or project grants, was part of Niagara’s institutional culture. At Lambton, the college started developing local partnerships in 2002 with its new president. The college found new opportunities for revenue within its technology department. Applied research activities at Lambton thus have been isolated to the technology department, and a select number of faculty within that department.

5.5 Chapter Summary

This chapter provided descriptive analyses of the Seneca College, Niagara College, and Lambton College case studies. The colleges were then compared with respect to the changes that they each made in order to respond to the system’s new accountability structures, ability to offer degrees in applied areas, and engagement in applied research. It was found that all three colleges made similar changes in response to the new accountability structures and applied research mandate. However, the three colleges took to different paths when it came to offering degree programs.
Chapter 6: Framing Institutional Change: A Cross-Case Analysis

This thesis has analyzed institutional change at the Ontario colleges over the period from 2002 to 2012. Changes in the college system started with significant funding cuts in 1996. These cuts marked the beginning of a paradigm shift for the colleges; they were an indication from the government that the colleges needed to become more financially self-sufficient. The legislative changes that followed in 2000 and 2002 made fundamental changes to the governance structures and logics that supported the system. The first piece of legislation, the Post-secondary Education Choice and Excellence Act, 2000, included a provision for Ontario colleges to start offering 4-year degree programs in applied areas. The second piece of legislation, the Ontario Colleges of Applied Arts and Technology Act, 2002, changed the governance structures affecting the colleges and explicitly added applied research to the mandate of the colleges. The underlying premise of this thesis was that the changes in legislation in 2000 and 2002 laid the foundation for institutional change at the Ontario colleges.

The legislation put into place new accountability structures, the government pushed the operational autonomy to the local governing boards of the colleges. There was a reconstitution of the actors in the system and a corresponding shift in power structures. The legislation also added new higher-level activities for the colleges to engage in: degree offering and applied research. However, there was not uniform adoption of the higher-level activities amongst the colleges. Some colleges decided to pursue degree programming and applied research, some colleges decided to pursue just applied research, and several colleges decided not to engage in either degree programming or applied research. All of these changes were happening at approximately the same period of time for the colleges. Colleges in the Ontario system had to respond to the changes in their environment by reconfiguring their operations in a short period of time. The
degree and research activity that happened in the college system at each institution is captured in Appendix C and D of this thesis.

The purpose of this study was to examine if and how those legislative changes affected the institutional environment of the system and of the individual colleges within the system in the ten years between 2002 and 2012. This chapter recaps the research questions and methodology of the study, reflects on the major themes of institutional change in the Ontario college system, discusses how these changes fit within the existing theory and outlines the implications for the Ontario college system. The last part of the chapter poses possible research opportunities resulting from the findings.

6.2 Research Questions

A survey of the relevant literature in chapter two situated the Ontario college system within the larger Ontario higher education system and global education systems. Globally, higher education systems were being transformed with policies guided by concepts of marketization and decentralization. Governments moved from a state-controlled governance model to a more self-regulative model. These shifts were linked to greater institutional autonomy and mission stretch. There was sparse literature, however, on how these changes affected the internal organization of the institutions.

This study was created around the theoretical framework of institutional change. Conceptually, institutions belong to material-resource environments and institutional environments; documenting the change in these environments indicates how an institution changes over a period of time. This thesis examined the differences in the material-resource and institutional environments between the pre-legislation era and the post-legislation era that followed a triggering event, specifically the legislative changes in 2000 and 2002. The research
questions for this thesis focused on the components of a college’s institutional environment before and after the legislative changes: the components being governance structures, institutional actors, and institutional logics.

6.3 Methodology

This thesis was designed using a case study methodology. The study consisted of a multi-level analysis: at the organizational-field level examining the Ontario college system, and at the institutional-level examining three individual colleges within the system. The study was completed in three phases. The first phase was the case selection. The three college cases were chosen based on where they lay on a spectrum of differentiation activities. The second phase of the study was a system-level analysis. A deeper understanding of the changes at the system-level was gained through corroborating interview data from specifically chosen actors within the system with a document analysis. The third phase of the study was the case study of the three individual colleges: Seneca College, Niagara College, and Lambton College. At each college, there was a document analysis phase followed by interviews of key personnel.

6.4 Trends in the Ontario College System

Chapter four of this thesis examined the structures present in the Ontario college system pre- and post-legislative changes from an organizational-field perspective. It was concluded that there was evidence of system-level change. Actors, such as the Council of Regents, were deleted from the system and new actors were added to the system. As a result, the structures and governance processes were altered within the system as a whole. The legislation also added new activities to the colleges’ repertoire which altered the boundaries of activities that the colleges could engage in. The changes outlined in chapter four resulted in significant changes in the
material-resource environment and the three components of the colleges’ institutional environment.

Chapter five of this thesis examined, from an institutional-level perspective, how the colleges changed in response to the changes at the system-level. The chapter outlined how each college adapted to the new financial and program quality accountability structures, degree offering, and applied research. With respect to the new financial and program quality accountability structures, it was found that all three colleges behaved similarly. With respect to degree offering, though, each college adopted this mandate to a differing extent. The extent to which the particular college engaged in degree-offering determined the extent of the effect on the institution. The overarching requirements on colleges that wanted to offer degrees altered the structure of those colleges and the logics that followed. With respect to applied research, all three colleges in this study were active participants in applied research, which was not representative of the spectrum of applied research activity across the colleges. There were colleges that exhibited no research intention. However, the colleges in the no-research-intention category that were approached for this study declined to participate. The three colleges in the study seemed to pursue applied research for different reasons. Lambton firstly needed to develop new revenue sources and wanted to aid in local economic development. Niagara College was already applying for grants, and applied research became another envelope for applying for funding. Seneca College also identified that applied research could be another revenue source, but applied research was also viewed as an extension of Seneca’s degree granting activities and of its desire to become a polytechnic. Applied research did change the actors within the three colleges, introducing some new governance processes that were directly related to research, and had
varying effects with regards to the institutional logics of the institution depending on how it was implemented institutionally.

Over the period of the study, 2002-2012, there were three major trends affecting the colleges in Ontario college system. There was evidence of mission stretch, which not only included the addition of higher-level activities such as applied research and degree offering, but also included the addition of activities that augmented revenue streams. There was also a trend of increased autonomy at the college-level which led to more localized accountability structures. The increased number of activities and external relationships that needed to be maintained by each college led to an increased environmental complexity which in turn was internalized by each college.

6.4.1 Mission stretch.

Prior to the legislative changes, colleges offered mainly two- and three-year diplomas, a varying numbers of apprenticeship programs and also had activities around community outreach, continuing education, and basic adult education. The colleges also offered some one-year certificates and graduate certificates, but the number of those programs was limited.

Slaughter (2004), in an article on academic capitalism, noted that colleges and universities, upon the loss of state support, would try to generate revenues from their core educational and research services. In this study, as the material-resource environment changed, the colleges did search for new student markets, engage in applied research, and look for other opportunities to capture new revenue streams. Recruitment of students extended beyond the colleges’ traditional catchment areas and outside their traditional base market (i.e., recent high school graduates). The reach for different markets of students affected how the colleges needed to present and market themselves. The colleges needed to have more industry-relevant, shorter-
haul programming, and at the same time be more academic, especially to attract lifelong learners and recent university graduates. Recruitment for many colleges extended to international markets. The resulting influx of international students, and programs geared towards them, required the colleges to build new specific expert departments for recruitment and services. For all of the new student populations, colleges needed to build in the auxiliary services and infrastructure necessary to support the new student populations.

The legislation opened the offering of degrees as a new potential institutional logic available to the colleges. The logic came in the form of being able to do a new activity, but also introduced the ability to offer higher-level programming. Prior to the legislation, the offering of degrees was entirely in the domain of the university sector in Ontario. Colleges were not able to offer degrees on their own. A few colleges did have relationships with universities to offer degrees on their campuses, albeit as joint programs or under the name of the partnering university.

When the offer from the government came in the form of a pilot project to offer degrees, a majority of colleges put resources into developing degree programs. However, many of the smaller colleges were not able to successfully launch their degree programs and grow the number of degrees they offered. A report published by the Higher Education Quality Council of Ontario indicated that the degree granting mission created the largest aspect of differentiation between colleges (Hicks, Weingarten, Jonker, & Liu, 2013). Furthermore, there is some additional evidence of within-sector differentiation as some of the degree-granting colleges also associated themselves with Polytechnics Canada.

Outside of offering classroom programming, colleges looked to augment their revenue in less traditional ways. Applied research was never in the logics of the colleges and played little to
no part in the system prior to the legislation. However, by 2011, seventeen of twenty-four colleges stated that applied research was part of the strategic mission of their college; 15 Ontario colleges had successfully applied for NSERC CCIP grants. The applied research mandate created a number of opportunities for colleges to connect with industry. Applied research required its own infrastructure and people dedicated to achieving that mission.

The connection with industry had a side effect: some colleges created senior executive positions dedicated to maintaining external relationships; the position came with a new supporting organizational structure beneath it. Part of the job description for those senior executives was to create alumni development and donations from their industry and community partners.

Each one of these activities, on its own merit, created additional organizational requirements and required specialized knowledge. The more prominent the activity became within the college, the more ingrained it became in the colleges’ decision-making paradigm, becoming part of the institutional logics of the institution. The mission of the colleges stretched as the colleges added more activities. Reichert (2009) suggested as the mission stretch increases, so does the spread of institutional resources across those missions. A by-product is a de-emphasis on the core activities of the college.

6.4.2 Increased autonomy, hence increased accountability.

The shift of operational autonomy to the colleges also came with a shift of accountability structures. Financial and program quality accountability was now the responsibility of each college’s board. As a result, the boards demanded information to make decisions from their institutions. Each college needed to build the capacity to gather and present relevant information coherently, which led to the inclusion of institutional research functionality in each college. In
response to the new necessity of ensuring the colleges’ financial health, boards supported
diversifying revenue streams, which meant engaging in new activities as outlined above in the
section describing mission stretch. Colleges needed to have capacity to be more responsive and
entrepreneurial.

In the case of the Ontario colleges, the new system environment institutionally-embedded
the economic factors as part of decision-making. The colleges were forced to ensure balanced
budgets with lower government revenue. With this underlying logic, colleges might try to avoid
less profitable activities. Depending on the size of the institution, the need for financial
sustainability could be distributed throughout the institution. Larger institutions might be able to
make decisions on initiatives that would not be entirely economically viable because other parts
of the institution would be able to offset those losses through cross-subsidization. Whereas, in
smaller colleges, the ability to offset non-profitable programs, or take risks, could be less.

The localized accountability structures for program quality created centralized program
review and development processes at each college. At the system-level, the two program-related
processes, program review and program development, required specialized knowledge, and
hence a related organizational structure. Program review processes needed to have a structured
and consistent process institution-wide in response to the College Ontario’s PQAPA
requirements. Colleges became self-critical with respect to their operations, and were pleased
with the outcomes of the process audit introduced into the system. On the program development
front, new program proposals, which were sent to Colleges Ontario’s CVS before heading to the
Ministry for funding decisions, required their own form of specialization in terms of defining
learning outcomes and program requirements. Each college had specific departments that aided
in program development.
For the colleges, the defined time of introspection caused by the PQAPA audit allowed the colleges to self-correct any gaps in their internal quality assurance processes. This created an environment where there was an actor in the college directly responsible for proactively addressing program quality issues, as opposed to being reactive as it had been in the previous paradigm.

The accountability mechanisms and the information required to achieve them introduced new logics into the system. The colleges were now responsible for their programming, not the Ministry. The colleges were now responsible for their finances, not the Ministry. As a result, colleges built the required organizational structure to support those new responsibilities.

6.5 Findings

It is interesting to analyze a number of trends in the Ontario college system using the theoretical concepts introduced in this thesis. The main areas of discussion are the observations that organizations tend to map their organizational structures to the environmental complexity; the loose coupling of organizational structures within an institution can lead to instances of mission incoherence; and increasing the number of competing institutional logics available to institutions can increase in-sector differentiation in higher education.

6.5.1 Mapping organizational structure to environment complexity.

Organizations tend to map their organizational structures to the environmental complexity (Buckley, 1967). These findings are corroborated by Weick’s model of organizing. Weick’s theory predicted that in an attempt to reduce environmental uncertainty, internal actors organize around narrowing the range of possible options that they have to choose from. This can result in the introduction of sub-organizations or actors to deal with specialized tasks.
With respect to the Ontario colleges, the increased autonomy and local accountability coupled with the less predictable material-resource environment created environments where the colleges introduced a number of new activities that extended the boundaries for which a college chooses its actions. All of these new activities exposed the college to a new level of environmental complexity. In response, colleges within the Ontario college system created new internal organizational structures to cope with that complexity.

Levin (1998) found that managers in the community college systems, including Ontario’s, made decisions restricted by their environments and the system identity. Actors responded to environmental changes that fit the institutional self-perception. However, they did not respond when that action did not fit their institution’s identity. This study reconfirms Levin’s findings. However, in the same 1998 study, one of Levin’s major findings was that these same organizations contain the changes within their existing organizational structures. His study was done prior to the legislative changes in Ontario. In contrast, this study found that the colleges extensively changed their organizational structures and hiring practices in many cases to accommodate new missions. The long-term result being that logics are institutionally reinforced by these new organizational structures. Therefore, new institutional logics that initially competed with the primary logics of the institution have a greater chance of surviving. The intensification of some activities and the addition of new activities created departments in the college that focused on international students, applied research, program development and review, institutional research, and a number of other auxiliary departments.

The period following the legislative changes in 2000 and 2002 introduced many new logics into the college paradigm. These logics introduced by the new legislation represented all of the new possible actions that were available to college actors to complete their institutional
missions. As the college leadership grappled with the variety of options available to the colleges, they introduced new actors to handle those new complex environments. The new actors’ roles would be to simplify that specific environmental complexity and introduce activities or processes in response. In this case, a change in institutional environment introduced new actors, and then the new actors reinforced the logics. An example of this would be the development of program review or research departments at each of the colleges. Each department then put in place processes, recruited internal actors, and attempted to disseminate a new logic.

At the institutional level of the colleges, as established already, the colleges added a number of new activities and organizational structures which responded to changes in the environment. However, the implementation of many of these new activities required input from the academic departments. Specifically, as the faculty’s role was hard-limited by its collective agreement, many of these new initiatives were placed on the administrator within the academic departments. An administrator, in their daily job, would have to respond to a wide range of pressures requiring a number of different knowledge sets. For example, after the legislative changes, over the course of an academic year, the administrator might have to deal with domestic and international student issues, program development and quality, professional development of their faculty, applied research, fundraising, negotiating with industry, facility development, international projects, university transfer, degree development and the mundane determination of faculty workload and hiring. The workload and areas of responsibility of the academic administrators increased as a result of the new activities so much that all institutions in this study needed to hire an additional level of departmental academic administrator (i.e., chairs at Niagara, associate chairs at Seneca, and additional deans at Lambton). Furthermore, the college academic leadership created a new level of senior academic administrator, as seen with the addition of
Associate Vice-President Research positions at Niagara and Seneca. These new positions were a direct expression of the increased complexity required for the colleges to organize around.

### 6.5.2 Loose coupling can lead to decreased mission coherence.

The second finding of this paper is that the loose coupling of organizational structures within an institution can lead to decreased mission coherence. Mission coherence is an important attribute for an institution because it determines what is acceptable action. Among other things, an institution’s mission helps determine which constituencies the institution wishes to serve and how it intends to serve those constituencies. In general, the dedication of resources to one activity generally removes those resources from another activity; a simple example being faculty’s time doing research as opposed to preparing for classes or developing curricula.

As outlined above, using Weick’s model of organizing as a guide, increased environmental complexity can lead institutions to create sub-organizations to cope with new environments. Scott and Meyer (1987, p.129 as cited in Scott, 1987) predicted that organizations that operated in more complex environments would have “greater administrative complexity and reduced mission coherence.” As a result of the organizing process, sub-organizations can become loosely- or tightly-coupled with each other. In the case of the studied colleges, loosely-coupled organizational structures were apparent. For example, at Lambton College, one of the organizational missions was success in applied research. However, applied research activities were compartmentalized and did not have a daily effect on the academic departments except for the technology department. In these cases of loose-coupling, it was possible to see logics existing at the institutional level without affecting all parts of the college.

Loosely-coupled structures within an institution provide benefits and challenges. The loosely-coupled structures can contain dedicated resources or specialized expertise that allow an
institution to respond more quickly to changes in its environment. Also because of the dedicated resources, changes in the environment do not require the entire institution to change; Weick refers to this phenomenon as localized adaptation. Weick states “[i]f all of the elements in a large system are loosely-coupled to one another, then anyone else can adjust to and modify a local unique contingency without affecting the whole system” (Weick, 1976, p.7). This idea applied to the context of this thesis leads to the self determination of actors at the institutional level. However, by the same hand, localized adaptations and self-determination of actors can have drawbacks for an institution. The self-determination by actors can introduce a number of uncoordinated, competing institutional logics that could insidiously become more essential to an institution. Scott (2000, p.359) likened this situation to an “organizational soup” where organizational missions blend together and it becomes difficult to tell missions apart. Actors in the college could possibly become confused as to which activities were most desirable and what maximized value for the college. In loosely-coupled organizations, there is an increased need for communication strategies in order for actors within the institution to understand the priorities of the institution and all of the different ways that they can contribute to the overall mission of the institution.

6.5.3 Competing institutional logics can lead to within-sector differentiation.

The increasing number of competing institutional logics can lead to within-sector differentiation. The discussion around system differentiation can be a confusing and complicated one. The intention of this thesis was not directly to evaluate the amount of differentiation in the system; rather it was to examine how individual institutions responded to new environmental conditions. However, themes surrounding differentiation and diversification are logical avenues
of inquiry arising from this thesis. Questions such as whether the government put in place conditions that increased institutional differentiation are natural outflows from this thesis.

Neave (1996) commented on the dynamics of higher education systems and likened the dynamics of the higher education systems to the Cheshire cat from Alice’s Adventures in Wonderland: from one perspective, the system/Cheshire cat may look like a singular creature; however, as the viewer’s vantage point changes, the boundaries of the creature obscure. This quandary makes commentary on differentiation in higher education systems difficult as there are many levels from which to view higher education. In this section, the analysis of differentiation is from a single perspective at the level of the Ontario college sector; an inter-sector analysis that includes Ontario’s university system is not considered.

Much of institutional theory predicts a reduction in differentiation. The concept of isomorphism in institutional theory refers to a situation in which organizations are faced with mimetic, normalizing, and regulative forces that over time cause organizations to become similar (DiMaggio & Powell, 1983). However, there is evidence that the Ontario colleges studied exhibited some cases of divergent behaviour over the period of the study. This is seen in a couple of different instances, although in different contexts. The first instance is the difference in degree offering amongst the studied colleges. The second instance is related to their creative and unique approaches to diversifying their revenue streams; for example, Niagara’s learning enterprises, Lambton’s interaction with the Sarnia-Lambton Economic Partnership and the sustained partnership with Jilin University in China, and Seneca’s success in building relationships with universities.

Differentiation can arise when actors have the ability to choose among options. In the case of the colleges, options arose when there was a disruption in their environment. In a steady
state, institutions are viewed to be in an equilibrium with a stable governance process, institutional actors, and institutional logics (Barley & Tolbert, 1997). However, if the institutional environment faces exogeneous disruptions there can be changes to the institutional equilibrium (H. Meyer & Rowan, 2006). Actors in a disrupted environment often face multiple, possible contradictory, competing institutional logics (Barley & Tolbert, 1997). Manning (2013) wrote that at several levels in the higher education system, actions are a result of individual choice given the institutional context. Actors, faced with multiple institutional logics, have the opportunity to choose from multiple legitimate paths for action. Thoenig (2011) wrote that actors follow the rules guiding the institution, but also make decisions that they believe are appropriate to the situation they face. As with the case of the Ontario colleges, a “local order” could create heterogeneity in space (Thoenig, 2011, p.11), where differentiated outcomes are dependent upon and can be legitimized by local institutional contexts. Actors, and hence institutions, were placed in an environment that could encourage differentiation.

Prior to the legislation, the government could have been seen as applying coercive isomorphic pressure through the Council of Regents which contributed to the making of a relatively homogeneous system of colleges. The legislative changes in 2000 and 2002 provided an avenue for differentiation. Some parts of the legislation had homogenizing effects on the system, while other parts had de-homogenizing effects. Aspects of the legislation that gave the college an additional option had the ability to help the colleges differentiate from one another. The Postsecondary Education Choice and Excellence Act, 2000 made available a new option for colleges to undertake, specifically, the ability to grant degrees; hence that Act gave the possibility to differentiate. Colleges were able to choose if they offered a degree program or not, and to what extent degree-offering entered their missions. The Ontario Colleges of Applied Arts
and Technology Act, 2002, contained components that did, and those that did not, promote
differentiation. Aspects of the latter legislation released the colleges from the restrictions of
being a Schedule III Crown corporation, granted the ability to locally approve financial decisions
and create subsidiaries, and created a mandate of applied research all provided additional options
to the colleges. However, the accountability structures that were mandated by the 2002 Act and
the binding policy directives created relatively homogenized structures across all colleges. For
example, specific functions for program review, program development, and institutional
research.

6.6 Implications

In the period following the legislative changes, the Ontario college system underwent a
period of major upheaval. The colleges, prompted by the government, went into the period in
search of a new identity. The colleges matured their internal decision-making capacity, explored
new activities and built in new capacities. The result at the end of the period was that each
college had chosen activities that defined their institution; they greatly diversified their internal
operations, and had the capacity to make decisions that affected their operations.

6.6.1 Implications for the college.

Traditionally, college academic departments were responsible for delivering academic
programming, mainly in the form of diplomas. However, the increased environmental
complexity from the perspective of the academic department should be of concern to the college.
This issue creates a number of sub-issues. First is an issue regarding the lack of mission
coherence. A lack of mission coherence can lead to situations where the academic departments
make decisions that may not use their resources in accordance with the direction that the college
has chosen to move. Secondly, the academic administrator’s job is in danger of becoming overly
complex, which may result in problems with competency, personal stress, or effectively implementing the college mission. This can have effects for the college in terms of retention and succession planning of academic administration in the long-term. In the shorter term, as the academic administrator is the leader of many staff and faculty, stress and possible disengagement of the academic administrator can have wider departmental effects.

Within the college, an underlying financial sustainability logic may have entered the decision-making processes. As a result, colleges may start allocating resources on the basis of an activity’s or unit’s profitability rather than on the basis of its contribution to meeting local social needs. As time progresses, unprofitable activities could no longer be a part of the institutional logics and would not even be an option for future college decision-making. In institutions where there is less financial flexibility, the inability to do unprofitable activities could possibly be more pronounced.

Colleges have a number of issues to address regarding the implementation of applied research. The colleges are still in the process of figuring out optimal processes for engaging in research. Currently, there is no reward system for faculty to do research. The standard workload form and the structure of the semestered workload restricts faculty time to engage in research projects.

### 6.6.2 Implications for policy makers.

The colleges are becoming increasingly stratified within the system. Larger colleges are taking on a larger number of degrees and changing their operations to do so. The colleges have also put in robust mechanisms for program development and review. The hiring policy at degree-granting colleges has generally changed to show preference to candidates with Ph.D.’s. As the colleges gain experience with development and review, at some point of time, the colleges will
likely come to view the PEQAB processes as an unnecessary external review. This finding is corroborated by an external review of PEQAB (Crow et al., 2011). The government will be put in a situation where the colleges will argue that the cost to those colleges and the system is unreasonable. The government may be placed into a situation where it will have to consider an alternative process for those colleges. The side effect of that action could possibly be a reinforcement of the stratification that is already happening in the system.

Another possible implication for the government is that it will need to pay for some important activities or else the activities may not be done due to bottom-line pressure on the colleges. Creative and unprofitable new programs originating from a college might not be part of the institutional logic. Furthermore, the identification of under-represented and socially marginalized groups will need to be identified at the provincial-level as opposed to the local level because the institutional logic of financial sustainability pushes the colleges away from unprofitable activities. The mandate to explore or continue unprofitable activities will have to come from the government along with funding attached.

6.7 Contributions to the Literature

This thesis examined the Ontario colleges at an important juncture of their histories. The institutional environment theoretical framework presented by Scott (2000) provided a sound platform to document the changes in the colleges as they adjusted to changes in their material-resource and institutional environments. It outlines some of the changes that the colleges needed to make to their organizational structures and decision-making processes. The change in environment has presented challenging choices to college actors to use the college resources effectively to either accommodate possible new missions or not.
Although the intent of the thesis was not specifically to examine applied research and degree offering, this work begins to chart the colleges’ foray into higher-level activities: degree-granting and applied research. It provides a historical record of the factors that three colleges considered as they decided whether to offer degree programs or not. This work also examines how three colleges organizationally started applied research activities.

In terms of scholastic contributions, the analysis in this thesis applies Weick’s model of organizing to institutional theory documenting the effect of external environment complexity on internal institutional environment. This thesis applied institutional theory concepts to the homogenizing effects on the colleges of the mandated financial and program accountability structures. However, it also shows that when presented when several competing logics, college actors have a choice into what actions to take depending on their local contexts. This is seen as the colleges chose their long-term paths as to whether to offer degrees or not, how they implemented applied research, and how they chose specific activities to generate new revenue.

6.8 Future Research

The Ontario Colleges of Applied Arts and Technology were originally established to create programming for students for whom university courses were not deemed suitable, and to provide training that universities were not designed to offer (Government of Ontario, 1967). At its inauguration, the three major constituencies the colleges were set to serve with education beyond a secondary school level were graduates of the non-university curriculum of the high schools, non-high-school-graduate adults, and out-of-school youth. The mandate of the colleges was to focus on local development. The major theme of the colleges was accessibility for learners.
This study set out to explain how the colleges changed in response to legislative changes in 2000 and 2002. The findings confirmed change in the material-resource environment, the power structures within the college system, and the presuppositions that guided action. The environment that the college existed within changed. The colleges existed in more complicated environments with new logics entering the system. The new logics stressed financial sustainability. As argued by this thesis, this led to the colleges reaching out to more and more stakeholders which has led to mission incoherence. In view of the findings of this research and its implications, there are a number of new questions that warrant future inquiry.

Should a college have mission coherence? How can the academic departments deal with the complexity of the college environment? How does the college prioritize its activities? Does the increasing number of requirements on the academic department reduce the effectiveness of its programs?

Does the divergent behaviour in the college system indicate the stratification of the system? Does increased stratification of the colleges lead to more desirable outcomes for the society?

What constituencies is the Ontario post-secondary system serving and not serving in its current structure? How does the colleges’ reliance on international students affect their overall educational environment and offerings?

Are the accountability mechanisms working in the college system?

If applied research remains a goal of an institution, how can the colleges adjust the workloads to accommodate it? Will newly credentialed faculty at the larger colleges require different workloads? Does the cultural change extend down to the staff and faculty and students?
with respect to applied research? Is applied research impacting community and economic development?

6.8 Chapter Summary

Between the years of 2000 and 2012, there were some profound changes to the college system. The overall governance structure changed, and new external actors were introduced into the system. The new governance structure changed the locus of control from external enforcement to internal enforcement. The new external actors placed new pressures on the colleges that influenced the way the individual colleges internally structured themselves and hired new faculty. All of these changes affected the types of conversations happening at the college and have shaped new institutional logics of the underlying institutions.
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doi:http://dx.doi.org.myaccess.library.utoronto.ca/10.1057/hep.2008.5


Appendix A: REB Approval

PROTOCOL REFERENCE # 26875

September 21, 2011

Dr. Glen Jones
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252 Bloor St. West
Toronto, ON M5S 1V8

Mr. Kevin Ramdas
Department of Theory and Policy Studies
OISE/University of Toronto
252 Bloor St. West
Toronto, ON M5S 1V6

Dear Dr. Jones and Mr. Ramdas:


<table>
<thead>
<tr>
<th>ETHICS APPROVAL</th>
<th>Original Approval Date: September 21, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expiry Date: September 20, 2012</td>
</tr>
<tr>
<td></td>
<td>Continuing Review Level: 1</td>
</tr>
</tbody>
</table>

We are writing to advise you that the Social Sciences, Humanities and Education Research Ethics Board has granted approval to the above-named research study under the REB’s delegated review process. Your study has been approved for a period of one year and ongoing projects must be renewed prior to the expiry date.

All your most recently submitted documents have been approved for use in this study.

Any changes to the approved protocol or consent materials must be reviewed and approved through the amendment process prior to its implementation. Any adverse or unanticipated events should be reported to the Office of Research Ethics as soon as possible.

Please ensure that you submit an Annual Renewal Form or a Study Completion Report 15 to 30 days prior to the expiry date of your study. Note that annual renewals for studies cannot be accepted more than 30 days prior to the date of expiry, as per federal and international policies.

If your research has funding attached, please contact the relevant Research Funding Officer in Research Services to ensure that your funds are released.

Best wishes for the successful completion of your project.

Yours sincerely,

Dean Sharpe, Ph.D.
Research Ethics Board Manager--Social Sciences and Humanities
### Appendix B: Geographic Locations of Ontario Colleges and Universities

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>Colleges with designated catchment areas</th>
<th>Primarily degree granting institutions in proximity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Toronto Area</td>
<td>Humber College, Seneca College, George Brown College, Centennial College, Sheridan College</td>
<td>University of Toronto – Downtown, University of Toronto – Mississauga, University of Toronto - Scarborough, University of Ryerson, York University, OCAD University</td>
</tr>
<tr>
<td>Hamilton</td>
<td>Mohawk College</td>
<td>McMaster University</td>
</tr>
<tr>
<td>Ottawa</td>
<td>Algonquin College</td>
<td>Carleton University, University of Ottawa</td>
</tr>
<tr>
<td>Kitchener, Waterloo, Guelph</td>
<td>Conestoga College</td>
<td>University of Waterloo, Wilfred Laurier University, University of Guelph</td>
</tr>
<tr>
<td>Kingston</td>
<td>St. Lawrence College</td>
<td>Queen’s University</td>
</tr>
<tr>
<td>Belleville</td>
<td>Loyalist College</td>
<td>None</td>
</tr>
<tr>
<td>London</td>
<td>Fanshawe College</td>
<td>University of Western Ontario</td>
</tr>
<tr>
<td>Sarnia</td>
<td>Lambton College</td>
<td>None&lt;sup&gt;38&lt;/sup&gt;</td>
</tr>
<tr>
<td>Niagara</td>
<td>Niagara College</td>
<td>Brock University</td>
</tr>
<tr>
<td>Windsor</td>
<td>St. Clair College</td>
<td>University of Windsor</td>
</tr>
<tr>
<td>Barrie</td>
<td>Georgian College</td>
<td>None</td>
</tr>
<tr>
<td>Durham</td>
<td>Durham College</td>
<td>University of Ontario Institute of Technology&lt;sup&gt;39&lt;/sup&gt;</td>
</tr>
<tr>
<td>Peterborough</td>
<td>Fleming College</td>
<td>Trent University</td>
</tr>
</tbody>
</table>

<sup>38</sup> University of Windsor offers 11 BA programs on the campus of Lambton College

<sup>39</sup> Established in 2004
Sudbury  Cambrian College  Laurentian University
            University of Sudbury
North Bay  Canadore College  Nipissing University
Thunder Bay  Confederation College  Lakehead University
Timmins  Northern College  Algoma University\(^{40}\)
Sault St. Marie  Sault College  Algoma University\(^{41}\)

\(^{40}\) Established in 2008. However, Algoma College was affiliated with Laurentian University and offered degree-level programs in Sault St. Marie and Timmins for over 30 years.

\(^{41}\) Same as previous footnote.
### Appendix C: College Degree Programs as of 2012

<table>
<thead>
<tr>
<th>College</th>
<th>Institution Type</th>
<th>Area of Degree</th>
<th>Approved</th>
<th>Offered as of 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algonquin</td>
<td>CAAT</td>
<td>E-Business Supply Chain Management</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interior Design</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hospitality and Tourism Management</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Photonics</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Boreal</td>
<td>CAAT</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Cambrian</td>
<td>CAAT</td>
<td>Science and Technical Education</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>American Sign Language - English Interpreter</td>
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</tr>
<tr>
<td>Canadore</td>
<td>CAAT</td>
<td>Hospitality Administration</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Centennial</td>
<td>CAAT</td>
<td>Computer and Communication Networking</td>
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<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrated Accounting and IT Management</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrated Environmental Management</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Software Systems</td>
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<td>Yes</td>
</tr>
<tr>
<td>Conestoga</td>
<td>ITAL</td>
<td>Integrated Advanced Manufacturing</td>
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<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrated Telecommunications and Computer Technologies</td>
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<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Architecture</td>
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<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>Wood and Composite Products</td>
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<td>No</td>
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<tr>
<td></td>
<td></td>
<td>Health Informatics</td>
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<td></td>
<td></td>
<td>International Business Management</td>
<td>Yes</td>
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<td></td>
<td></td>
<td>Accounting, Audit and IT</td>
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<td>Yes</td>
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<td>Public Relations</td>
<td>Yes</td>
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<td>Criminal Justice</td>
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<tr>
<td></td>
<td></td>
<td>Design and Entrepreneurship</td>
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<td></td>
<td>Interior Design</td>
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<td>Confederation</td>
<td>CAAT</td>
<td>Indigenous Leadership and Community Development</td>
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<td>Durham</td>
<td>CAAT</td>
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<td>Fanshawe</td>
<td>CAAT</td>
<td>Integrated Land Planning</td>
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<td>Interior Design Technology</td>
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<tr>
<td></td>
<td></td>
<td>Biotechnology</td>
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<td></td>
<td>Public Institution Management</td>
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<td>Early Childhood Education</td>
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<td>Yes</td>
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<td>CAAT</td>
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<td>College</td>
<td>Type</td>
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<td>Georgian</td>
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<tr>
<td></td>
<td></td>
<td>Construction Regulation</td>
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<tr>
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<td>Financial Services</td>
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<td></td>
<td>Construction Science and Management</td>
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<td>Early Childhood Education</td>
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<td>Automotive Management</td>
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<tr>
<td></td>
<td></td>
<td>Police Studies</td>
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<td>Microelectronics</td>
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Appendix D: NSERC CCIP Grant Recipients in the Ontario College System

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<tr>
<th>College</th>
<th>Year received</th>
<th>Total Award received as of 2012</th>
<th>Proposal name</th>
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<tr>
<td>Algonquin</td>
<td>2009</td>
<td>1,000,000</td>
<td>Algonquin College Design Centre</td>
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<td>Algonquin</td>
<td>2010</td>
<td>750,000</td>
<td>Full Spectra Center</td>
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<tr>
<td>Cambrian</td>
<td>2009</td>
<td>200,000</td>
<td>Cambrian College Sustainable Energy Systems</td>
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<tr>
<td>Centennial</td>
<td>2009</td>
<td>200,000</td>
<td>Mobilizing Technology Solutions to Improve Health Care Resource Response and Management During High Stress, Emergency and Disaster Events</td>
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<tr>
<td>Centennial</td>
<td>2010</td>
<td>650,000</td>
<td>Technology Solutions for Healthcare Management and Health Research and Promotion</td>
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<td>Durham</td>
<td>2010</td>
<td>200,000</td>
<td>Renewable Energy Devices Technology Development</td>
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<td>Fanshawe</td>
<td>2009</td>
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<td>Centre for Sustainable Energy and Environments</td>
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<td>Fleming</td>
<td>2010</td>
<td>1,000,000</td>
<td>Advancement and Development of Innovative Water and Wastewater Treatment Technologies</td>
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<td>George Brown</td>
<td>2008</td>
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<td>George Brown College Research Labs</td>
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<td>George Brown</td>
<td>2011</td>
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<td>Green Homes</td>
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<td>Georgian</td>
<td>2010</td>
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<td>Solar Energy Technology Research Program</td>
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<td>LaCite</td>
<td>2008</td>
<td>1,700,000</td>
<td>Programme de recherche appliquée et de transfert technologique en biotechnologie en soutien au développement socio-économique local et régional</td>
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<td>Lambton</td>
<td>2009</td>
<td>1,200,000</td>
<td>Renewable Energy Asset Optimization</td>
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<td>Mohawk</td>
<td>2009</td>
<td>1,500,000</td>
<td>Building the Canadian Electronic Health Records Solution Reference Implementation</td>
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<td>Mohawk</td>
<td>2011</td>
<td>500,000</td>
<td>Developing a Power Protection and Management system for a Microgrid</td>
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<td>Institution</td>
<td>Year</td>
<td>Amount</td>
<td>Description</td>
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<tr>
<td>Niagara</td>
<td>2004</td>
<td>750,000</td>
<td>Supporting smart growth through the use of virtual reality technologies in land use decision-making</td>
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<td>Niagara</td>
<td>2008</td>
<td>1,700,000</td>
<td>Research and Development for Increased Usage of Flight Simulation in Flight Training</td>
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<tr>
<td>Niagara</td>
<td>2010</td>
<td>750,000</td>
<td>Economic Revitalization in the Niagara Region through Food and Culinary Innovation</td>
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<td>Seneca</td>
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<td>Centre for Development of Open Technology Research</td>
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<td>Sheridan</td>
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<td>Aging in Place: Optimizing Health Outcomes through Technology, Design and Social Inclusion</td>
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<td>St Lawrence</td>
<td>2009</td>
<td>1,000,000</td>
<td>Sustainable Energy Applied Research Centre</td>
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Appendix E: Letter requesting Administrative Approval

To be put on OISE/UT letterhead

Principal Researcher: Kevin Ramdas  
Tel: 647-428-1936  
Email: Kevin.ramdas@utoronto.ca

September, 2011

*Exploring Institutional Change at Three Ontario Colleges: 2002-2012*

**Information Letter**

President name and address

Dear <name>:

My name is Kevin Ramdas. I am currently completing the requirements for my doctorate at the University of Toronto. My dissertation is entitled: “Exploring Institutional Change at Three Ontario Colleges: 2002-2012”. The study will be conducted under the supervision of Dr. Glen Jones, professor in the Department of Theory and Policy Studies at OISE, and the Ontario Research Chair in Postsecondary Educational Policy and Measurement.

This research project examines the nature of changes that have taken place at three Ontario Colleges after two legislative changes by the Ontario government: the Postsecondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002. I would like to make <college name> as one of the study’s three cases. In order to use your institution in the study and seek ethical review from your institution, I require your written consent.

The first Act gave the Ontario Colleges a mechanism to offer baccalaureate degree programs and established the Postsecondary Education Quality Assessment Board. The second Act explicitly included research activity as an activity that colleges could use to achieve their missions; dissolved the Ontario Council of Regents and distributed its responsibilities to Colleges Ontario and the College Compensation and Appointment Council; gave the Board of Governors at each college more autonomy with respect to compensation, business transactions and partnerships. It is my intention to understand the degree of institutional change, if any, at your college in the context of these legislative changes. For example, has there have been changes your college’s belief systems, internal structure, or decision-making processes.

The study will involve two main phases at your college. In the first phase, I will gather and analyze a range of publicly-available current and historical documentation specific to your
college. For this part of the study, I would like to request access to your college’s document archive and contact to a person who could help me navigate those archives. Specifically, I will be looking at/for:

1) Academic and board of governors minutes
2) Strategic plans, business plans and annual reports
3) Evidence of research activity
4) PEQAB submissions
5) Marketing materials
6) Evidence of professional associations
7) Financial and budgetary documents
8) Websites
9) Course calendars from 2000 and 2010
10) Organizational charts from 2000 and 2010

During the analysis I will be noting any evidence to changes happening at your institution. In the second phase of the study, I will be requesting one hour interviews with approximately six leaders within your college who may have the most understanding of the changes in the institution. Potential interviewees include yourself, the VP Academic, the VP Admin, a senior board member, the faculty board member, the support board member, the head of institutional research, the head of applied research, and anyone that is recommended during the interview process. I have attached a copy of the interview questions for your perusal.

Subjects will be informed about the nature of the study and their participation, including assurance that they may withdraw at any time. Participation in the study is entirely voluntary. Interviewees may request that any information, whether in written form or audiotape, be eliminated from the project. Participants will at no time be judged or evaluated, and will at no time be at risk of harm.

Participating colleges will be named in the thesis, but individual interview subjects will remain anonymous. However, all information obtained in the research will be kept in strict confidence and stored at a secure location (in a locked cabinet in my personal residence). All digital data will be stored in an encrypted format. The researcher and the thesis supervisor will be the only ones with access to the data. In the research report, I will identify all participants by '<College name> College Employee <A, B, C, etc.>. All data will be used for purposes of my Ph.D. thesis and any research reports arising from the thesis. All raw data (audio recordings, field notes, transcripts, etc.) will be destroyed within five years of the completion of the thesis.

I believe that <college’s name>’s participation in this study will be interesting and could possibly provide an opportunity to reflect on the changes at your college. Your participation in
the study will aid developing a scholarly historical record of the Ontario College System for this time period.

The study has been approved by the Research Ethics Boards of the University of Toronto. If you have any questions related to your rights as a participant in this study please or if you have any complaints or concerns about how you have been treated as a research participant, please contact the Office of Research Ethics, ethics.review@utoronto.ca or 416-946-3273.

If you agree to consent to this project, please sign the letter below and return it to me by email or in the envelope provided. If you have any questions, please feel free to contact me at (647) 428-1936 or at kevin.ramdas@utoronto.ca. Dr. Glen Jones, Professor in the Department of Theory and Policy Studies at OISE and the Ontario Research Chair in Postsecondary Education Policy and Measurement, is my thesis supervisor. You can reach him at gjones@oise.utoronto.ca or 416 978-8292.

I understand that research involving human subjects requires ethical review at your college before proceeding. I have already obtained approval from the Ethical Review Board at the University of Toronto. If administrative consent is granted, I will provide you and your Ethical Review Board with my application for Ethical Review as required.

If there is interest from your staff, I will be pleased to share the results of my research.

Thank you in advance for your cooperation and support.

Sincerely,

Kevin Ramdas
Ph.D. Candidate, Theory and Policy Studies
OISE/University of Toronto
Address: 1600 Boxwood Way, Mississauga ON L5E 2Y1
Phone: 647-428-1936
Email: kevin.ramdas@utoronto.ca

Dr. Glen Jones
Professor, Theory and Policy Studies in Education
OISE/University of Toronto
252 Bloor St W, Toronto ON M5S 1V6
Phone: 416-978-8292
Email: gjones@oise.utoronto.ca

By signing below, you are providing administrative approval to include your college in the research study, you have received a copy of this letter, and you are fully aware of the conditions above.

Name: _________________________ College: _________________________

Signed: _________________________ Date: _________________________

Please write your email address if you would like a summary of the findings of the study upon completion: __________________________ Please keep a copy of this form for your records.
Appendix F: Sample Informed Consent Form for Phase 2 Interviewees

To be put on OISE/UT letterhead

Principal Researcher: Kevin Ramdas
Tel: 647-428-1936
Email: Kevin.ramdas@utoronto.ca

September, 2011

Exploring Institutional Change at Three Ontario Colleges: 2002-2012
Informed Consent

Dear <name>:

My name is Kevin Ramdas. I am currently completing the requirements for a doctorate at the University of Toronto. In order to meet the requirements of the program, I am undertaking a study entitled: “Exploring Institutional Change at Three Ontario Colleges: 2002 - 2012”. The study will be conducted under the supervision of Dr. Glen Jones, professor in the Department of Theory and Policy Studies at OISE, and the Ontario Research Chair in Postsecondary Educational Policy and Measurement.

This research project examines how three Ontario Colleges have changed their belief systems, organizational structure and decision-making processes after two pieces of legislation were passed by the Ontario government: the Postsecondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002.

The thesis will be carried out in three phases. The first phase involves the selection of three sample colleges based on the number of degree programs and the extent of research activity. The second phase is to interview between 4 and 6 important actors in the Ontario College System who are knowledgeable about these legislative changes and their implications. The purpose of the interviews is to provide a solid background of why the legislative changes took place, and what changes were expected in the colleges. Following the second phase of the study, the focus of the data collection will shift to the development of three college case studies with respect to institutional change.

I am inviting you to be an interview participant in the second phase of the study. I would like to interview you because of your experience in the college system with respect to the legislative changes. I have found your contact information online. Participation in this study is voluntary. The interview will take about an hour of your time. It will deal with your understanding of the legislative changes and the potential effect on how colleges would operate in the future. A preliminary interview question list is attached. At some points of time, I may ask follow-up or
clarification questions. My main objective is to document your understanding and perspectives regarding the changes occurring in the college system.

At any time, you may refuse to answer a question or withdraw from the interview process. You may request that any information, whether in written form or audiotape, be eliminated from the project. At no time will value judgments will be placed on your responses nor will any evaluation be made of your effectiveness as a college leader. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study.

In the thesis, I am striving to preserve anonymity, but due to your unique position with respect to the college system and the answers that you provide I cannot guarantee anonymity. If your anonymity can be preserved, there will be all efforts to do so. You will have a chance to review the interview transcript before it is entered into the research project. All steps will be taken to preserve confidentiality and to ensure that you are interviewed in a safe and secure environment with the freedom to withdraw or refuse to answer questions at any time.

It is the intention that each interview will be audio-taped and later transcribed to paper; you have the choice of declining to have the interview taped. You will be assigned a number that will correspond to your interview and transcriptions. Within the two weeks following the interview, your transcript will be sent to you to read. You will have two weeks to add, delete or correct the transcript before it is entered into the research project.

All data arising from the data collection will be used for this research project and any other publications or presentations resulting from the research project. The researcher and the thesis supervisor will be the only ones with access to the data. All digital data will be stored in an encrypted format. All data will be destroyed five years after the completion of the research project.

I believe you will find that your participation in this study will be interesting and could possibly provide an opportunity to reflect on the changes at your college. Your participation in the study will aid developing a scholarly historical record of the Ontario College System for this time period.

The study has been approved by the Research Ethics Boards of the University of Toronto. If you have any questions related to your rights as a participant in this study please or if you have any complaints or concerns about how you have been treated as a research participant, please contact the Office of Research Ethics, ethics.review@utoronto.ca or 416-946-3273.

Please take time to consider my request to participate. If you have any questions regarding the study or about your participation, feel free to contact myself at kevin.ramdas@utoronto.ca or 647-428-1936, or Dr. Glen Jones, my thesis supervisor, Professor in the department of Theory.
I would be very grateful to have your collaboration and expertise in carrying out this research project.

Sincerely,

Kevin Ramdas
Ph.D. Candidate, Theory and Policy Studies
OISE/University of Toronto
Address: 1600 Boxwood Way, Mississauga ON L5E 2Y1
Phone: 647-428-1936
Email: kevin.ramdas@utoronto.ca

Dr. Glen Jones
Professor, Theory and Policy Studies in Educational Policy and Measurement
OISE/University of Toronto
Address: 252 Bloor St W, Toronto ON M5S 1V6
Phone: 416-978-8292
Email: gjones@oise.utoronto.ca

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

Name: _______________________ College: _____________________________

Signed: _______________________ Date: _______________________________

Please write your email address if you would like a summary of the findings of the study upon completion: __________________________

Please initial if you agree to have your interview audio taped: _____

Please keep a copy of this form for your records.
Appendix G: Sample Informed Consent Form for Phase 3 Interviewees

To be put on OISE/UT letterhead

Principal Researcher: Kevin Ramdas
Tel: 647-428-1936
Email: Kevin.ramdas@utoronto.ca

September, 2011

Exploring Institutional Change at Three Ontario Colleges: 2002-2012
Informed Consent

Dear <name>:

My name is Kevin Ramdas. I am currently completing the requirements for a doctorate at the University of Toronto. In order to meet the requirements of the program, I am undertaking a study entitled: “Exploring Institutional Change at Three Ontario Colleges: 2002 - 2012”. The study will be conducted under the supervision of Dr. Glen Jones, professor in the Department of Theory and Policy Studies at OISE, and the Ontario Research Chair in Postsecondary Educational Policy and Measurement.

This research project examines how three Ontario Colleges have changed their belief systems, organizational structure and decision-making processes after two pieces of legislation were passed by the Ontario government: the Postsecondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002.

The thesis will be carried out in three phases. The first phase involves the selection of three sample colleges based on the number of degree programs and the extent of research activity. The second phase is to interview between 4 and 6 actors in the Ontario College System who are knowledgeable about these legislative changes and their implications. Following the second phase of the study, the focus of the data collection will shift to the development of three college case studies with respect to institutional change.

<College name> has agreed to participate in this study and the study has received approval from <College name>‘s ethical review. At your college, the study includes two phases: (1) an analysis of documents available in the public domain produced by your college, (2) interviews with approximately six of your college leaders. Potential interviewees include the President, the Vice-President Academic. The VP Administration, a Board Member, Faculty Board Member, the Support Board Member, the Head of Institutional Research, the Head of Research and anyone else referred to in previous interviews.
I am inviting you to be a participant in the interview component of the study. I would like to interview you because you are in a position within your college to observe the institutional changes that are happening. I found your contact information online. Participation in this study is voluntary. The interview will take about an hour of your time. It will deal with your understanding of how <college name> has changed since 2002 with respect to belief systems, organizational structure, and decision-making processes. A preliminary interview question list is attached. At some points of time, I may ask follow-up or clarification questions. My main objective is to document your understanding and perspectives regarding the changes occurring at your college.

At any time, you may refuse to answer a question or withdraw from the interview process. You may request that any information, whether in written form or audiotape, be eliminated from the project. At no time will value judgments be placed on your responses nor will any evaluation be made of your effectiveness as a college leader. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study.

In the thesis, I intend to identify <name of the college> by name and data from your interview will be attributed to ‘College Employee <A, B, C, etc.>’. Due to the limited number of interviewees, it may be possible for your interview data to be attributed to you. However, firstly, any readers of the research report will only be in a position to speculate as to the contributor of data; and secondly, you will have a chance to review the interview transcript before it is entered into the research project. All steps will be taken to preserve confidentiality and to ensure that you are interviewed in a safe and secure environment with the freedom to withdraw or refuse to answer questions at any time.

It is the intention that each interview will be audio-taped and later transcribed to paper; you have the choice of declining to have the interview taped. You will be assigned a number that will correspond to your interview and transcriptions. Within two weeks following the interview, your transcript will be sent to you to read. You will have two weeks to add, delete or correct the transcript before it is entered into the research project.

All data arising from the data collection will be used for this research project and any other publications or presentations resulting from the research project. The researcher and the thesis supervisor will be the only ones with access to the data. All digital data will be stored in encrypted format. All data will be destroyed five years after the completion of the research project.

I believe you will find that your participation in this study will be interesting and could possibly provide an opportunity to reflect on the changes at your college. Your participation in the study will aid developing a scholarly historical record of the Ontario College System for this time period.
The study has been approved by the Research Ethics Boards of the University of Toronto. If you have any questions related to your rights as a participant in this study please or if you have any complaints or concerns about how you have been treated as a research participant, please contact the Office of Research Ethics, ethics.review@utoronto.ca or 416-946-3273.

Please take time to consider my request to participate. If you have any questions regarding the study or about your participation, feel free to contact myself at kevin.ramdas@utoronto.ca or 647-428-1936, or Dr. Glen Jones, my thesis supervisor, Professor in the Department of Theory and Policy Studies at OISE and the Ontario Research Chair in Postsecondary Educational Policy and Measurement. You can reach him at gjones@oise.utoronto.ca or 416-978-8292.

I would be very grateful to have your collaboration and expertise in carrying out this research project.

Sincerely,

Kevin Ramdas
Ph.D. Candidate, Theory and Policy Studies
OISE/University of Toronto
Address: 1600 Boxwood Way, Mississauga ON L5E 2Y1
Phone: 647-428-1936
Email: kevin.ramdas@utoronto.ca

Dr. Glen Jones
Professor, Theory and Policy Studies in Education
OISE/University of Toronto
252 Bloor St W, Toronto ON M5S 1V6
Phone: 416-978-8292
Email: gjones@oise.utoronto.ca

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

Name: _______________________ College: _____________________________

Signed: _______________________ Date: _______________________________

Please write your email address if you would like a summary of the findings of the study upon completion: __________________________

Please initial if you agree to have your interview audio taped: _____

Please keep a copy of this form for your records.
Appendix H: Interview Guide for Phase 2 Participants

Pre-interview script
Thank you for agreeing to participate in this study. As you may know, the title of the study is ‘Exploring Institutional Change at three Ontario Colleges: 2002-2012. The interview will take about an hour. The objective of this interview is to give me an understanding of your perspective on how the legislative changes came into being and why they did. At some points of time, I may ask follow-up or clarification questions. My main objective is to document your understanding and perspectives.

If the interview question seems outside the scope of what you are associated with, we can skip the question. You may at any time refuse to answer a question or withdraw from the interview process. You may request that any information, whether in written form or digital recording, be eliminated from the project. At no time will evaluation or judgment be placed on your responses. Your anonymity will be preserved in the study. There is a small risk that you may be identified based on your answers. You will, however, be able to edit the transcript before it is entered into the research project. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study.

Interview questions
1. Why did the government approve legislation that allowed colleges to offer degree programs? What were they trying to accomplish with this change? Was there ambiguous language in the PSECE Act, 2000? What was left open to interpretation? Why?

2. Why did the government change the charter in 2002? What did the new charter allow the colleges to do differently? Was there ambiguous language in the College Charter, 2002? What was left open to interpretation? Why?

3. How did it make it easier for colleges to buy and sell property? Why was this provision necessary?

4. Were all colleges in support of the legislative changes to the charter and PSECE Act?

5. At the time, how did you think that the changes in legislation would affect the colleges?

6. How have colleges responded to the changes in legislation?

7. What was the role of the Ontario Council of Regents prior to the legislation? How did the colleges interact with the Council of Regents? How was the Council of Regents viewed? What did the Council of Regents bring to the system? Why was the Council of Regents broken up? How did the break-up of the Council of Regents affect the colleges?
8. How did the introduction of CVS and PQAPA affect the system? How did the colleges respond to the new bodies? What is the governance structure of CVS and PQAPA?

9. Prior to the new legislation, how were the colleges held accountable? In other words, what accountability mechanisms existed (financial, program quality, services provided)? How have accountability mechanisms changed since the legislation?

10. The changes in legislation allowed the boards to enter business transactions more easily. Why was this provision necessary? What kind of business transactions were the intention of the legislation? How did it become easier to do business transactions? How have the colleges used that provision?

11. Has there been differentiation in the college system? How have some colleges differentiated themselves? Why have colleges found it necessary to differentiate themselves? Is there competition over status? What does increased status within the system accomplish?

12. Why did degrees get introduced into the system? How did they get introduced into the system? What was the initial response from the colleges? Was the response uniform throughout the system? What were the barriers that colleges faced creating successful degrees? How has degree offering changed the internal structure of offering institutions? Do the degrees have an impact of institutions that do not offer degrees? Is there a reason why degree institutions are mainly in the urban area colleges?

13. What was the purpose of adding applied research capability to the colleges? Who pushed for capability? Why was the language around applied research added? How has applied research make colleges do things differently?

Post-interview script
Thank you for participating in the interview. I’ll be sending the transcript of the interview sometime in the next two weeks. At that time, you will have two weeks to enter any changes to the transcript and send it to me so that it could be entered into the research project. Thank you very much.
Appendix I: Interview Guide for Phase 3 Participants

Pre-interview script

Thank you for agreeing to participate in this study. As you may know, the title of the study is ‘Exploring Institutional Change at three Ontario Colleges: 2002-2012. The interview will take about an hour. The objective of this interview is to give me an understanding of your perspective on the changes on how <your college> has changed since 2002 with respect to belief systems, internal structure, and decision-making processes; specifically with respect to the legislative changes. At some points of time, I may ask follow-up or clarification questions. My main objective is to document your understanding and perspectives regarding the changes occurring at <your college>.

If the interview question seems outside the scope of what you are associated with, we can skip the question. You may at any time refuse to answer a question or withdraw from the interview process. You may request that any information, whether in written form or digital recording, be eliminated from the project. At no time will evaluation or judgment be placed on your responses. Your anonymity will be preserved in the study. There is a small risk that you may be identified based on your answers. You will, however, be able to edit the transcript before it is entered into the research project. Finally, you are free to ask any questions about the research and your involvement with it and may request a summary of the findings of the study.

Interview questions for Senior Board Member, President, VP Academic, VP Admin, Institutional Research, Faculty Board Member, Support Board Member

1) How long have you worked in the system and in what capacity?

2) What is the <Name of college>’s mission? Is it different than other colleges in the system? How?

3) Has the emphasis of the mission of <Name of college> changed in the last decade? How?

4) There were a number of changes in legislation regarding the colleges in 2000 and 2002. What additional capability did the PSECE Act give <Name of college>? What additional capability did the new College Charter give <Name of college>? Which changes had the biggest impact on the operation of <Name of college>?

5) What are the top three challenges facing <Name of college>? Do the new provisions in the legislation allow <Name of college> to deal with those challenges differently than before the legislation?

6) Has the competition between colleges changed over the last decade? How so? How has the college changed its operations for the increased competition?
7) Is there competition over status? What does increased status within the system accomplish? How does <Name of College> improve its status?

8) What role do degrees play at <Name of college>? What goes into making a successful college degree? What are <Name of college>’s plans for future development of degrees?

9) How has degree offering changed the way that your college operates? (with respect to new positions, decision-making bodies, accountability)

10) How have the PEQAB requirements changed <Name of college>? (with respect to new councils, hiring criteria, decision making, new positions in college, effort resources devoted to it)

11) What has <Name of college> done with respect to applied research? How heavily do you promote it internally? Externally? What pressure is placed on <Name of college> to produce applied research? How has <Name of college> changed to be successful in applied research (with respect to new positions, councils, effort and resources devoted to it)?

12) Has <Name of college> identified new sources of funding? If so, what steps has your college taken to access this funding?

13) Has there been a change in Credential Validation Service (CVS) and Program Quality Assurance Process Audit (PQAPA) procedures in comparison to Ontario Council of Regents? How? Has it changed the ways that your college handles programme approval? How (new positions, decision-making, accountability)?

   Alternative question: What effect does Credential Validation Service (CVS) and Program Quality Assurance Process Audit (PQAPA) on <Name of college>’s processes? How do CVS and PQAPA effect how your college handles programme approval? How? (with respect to new positions, decision-making, accountability)

14) How does <Name of college> decide on which new programs to offer? How has your program planning process or department changed over the last decade (organizational structure, decision-making, accountability)?

15) In the last decade, has <Name of college> dealt with finances differently? How? What has been the effect on organizational structure, decision-making processes, and accountability? Dealing with capital expenditures?
16) What effect did the legislation have on how <Name of college> deals with business transactions? Did the college changed the way it operated (organizational structure, decision-making, and accountability) because of the legislation? What new power does the board have with respect to business transactions?

17) What effect did the legislation have on how <Name of college> deals with partnerships with other organizations (municipalities, other educational institutions, business)? Did the college changed the way it operated (organizational structure, decision-making, accountability) because of the partnerships?

18) In the last decade, has the ministry promoted new initiatives for the colleges? How has your college dealt with those initiatives (org structure, accountability structure, decision-making)?

19) Was there ambiguous language in the PSECE Act, 2000? What was left open to interpretation?
   Was there ambiguous language in the College Charter, 2002? What was left open to interpretation?

20) Do you have any other comments that would help me understand the impact of these legislative changes on the work and autonomy of your college?

21) Do you have any suggestions of people within <Name of college> who would have particular insight into these questions?

**Interview questions for Head of Research**

1) Did the new college charter legislation have an impact on the role of research in the mission of your college?

2) Why do you think research activity was added to the mission of the college?

3) Where does research fit within the mission of the college?

4) Has the organizational structure of applied research changed over the last decade? If so, how has it changed? (with respect to new positions, decision-making, accountability)

5) How are decisions about the college’s research activities made? Are there advisory groups or internal councils that play a role in shaping the college’s strategic direction in this area?
6) What are the most important challenges you face in advancing the research function at your college?

7) How has the research environment within the college changed?

8) How has the research environment external to the college changed?

9) What external bodies does the research department have dealings with? Do the external bodies have an effect on the behaviour of the college? Why or Why not?

10) Do you collect data on the number of faculty who are actively engaged in research? How many faculty are engaged in research? What types of activities are taking place?

11) What is the relationship between teaching programs and research?

12) Is the college’s research mission having an impact on faculty hiring, and if so how?

13) What have been your college’s significant research accomplishments?

14) How many research grants has the college attracted?

15) Does the college operate an internal grants program to stimulate research activity?

Post-interview script

Thank you for participating in the interview. I’ll be sending the transcript of the interview sometime in the next two weeks. At that time, you will have two weeks to enter any changes to the transcript and send it to me so that it could be entered into the research project. Thank you very much.
Appendix J: Telephone and Email Scripts for Recruitment

Telephone Script

Hi <Name>:
My name is Kevin Ramdas and I am collecting data for my Ph.D. thesis at the University of Toronto. I am collecting data to better understand how colleges have changed over the last decade in response to two legislative changes: The Post-secondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002. I am looking to interview senior administrators and several board members at <College Name>. I’d be interested in hearing your perspective on how <College name> has changed in belief systems, organizational structure and decision-making processes over the last decade.
I have already received administrative consent from the president of the college and ethics review approval from <College name>’s research ethics approval board.
The interview is about 20 questions long and I expect it to take about one hour of your time. If you’d be willing to participate, I could send you an email with Informed Consent form and the potential interview questions and we could set up a time/place to talk. I can give you some time to think about the study and you could get back to me at a convenient time for you.

Email Script

Dear <Name>:
My name is Kevin Ramdas and I am collecting data for my OISE Ph.D. thesis “Exploring Institutional Change at Three Ontario Colleges: 2002-2012”. I have already received administrative consent from the president of the college and ethics review approval from <College name>’s research ethics approval board.
I am collecting data to better understand how colleges have changed over the last decade in response to two legislative changes: The Post-secondary Education Choice and Excellence Act, 2000 and the Ontario Colleges of Applied Arts and Technology Act, 2002. I am looking to interview senior administrators and several board members at <College Name>. I am interested in hearing your perspective on how <College name> has changed in belief systems, organizational structure and decision-making processes over the last decade.
The interview is about 20 questions long and I expect it to take about one hour of your time. Attached to the email are an Information Letter/Informed Consent form and the potential interview questions. If you’d be willing to participate please let me know and we could set up a time/place to talk.
Sincerely,
Kevin Ramdas
Ph.D. Candidate, OISE