

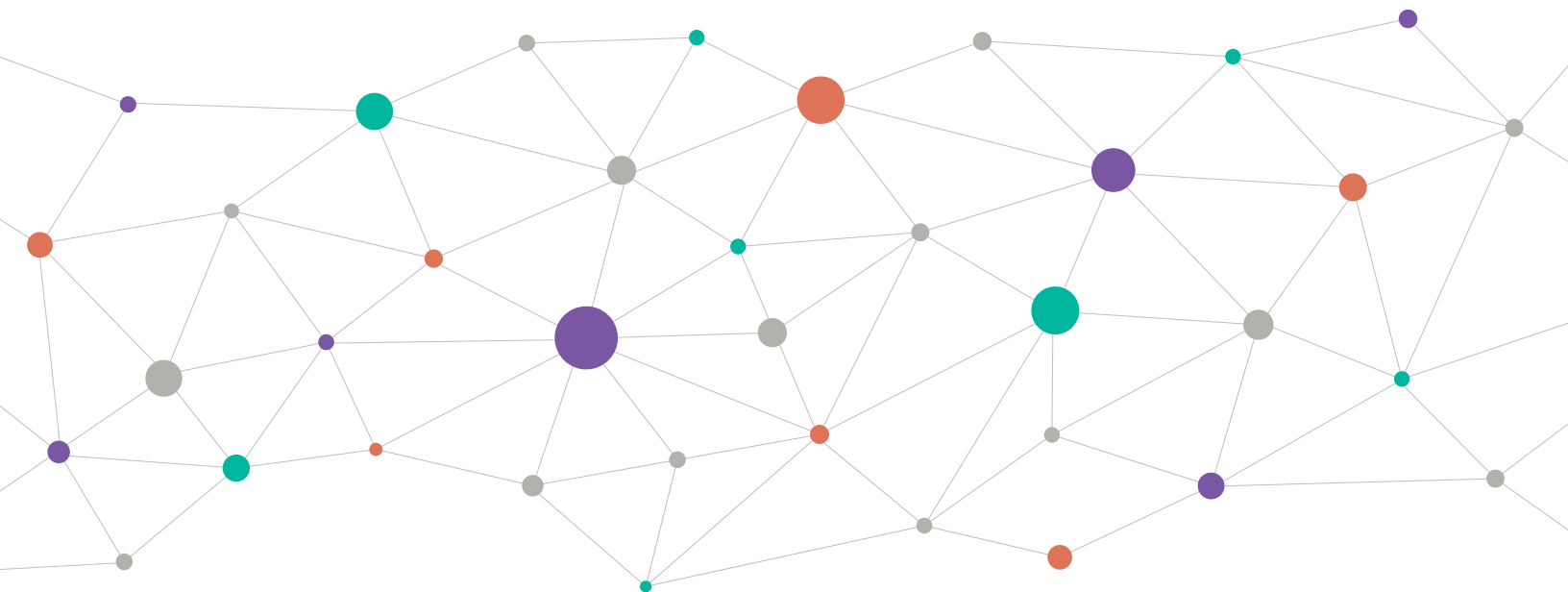


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Academic-Employer Connections
in Colleges and Institutes:

The Role of Program Advisory Committees

April 2017





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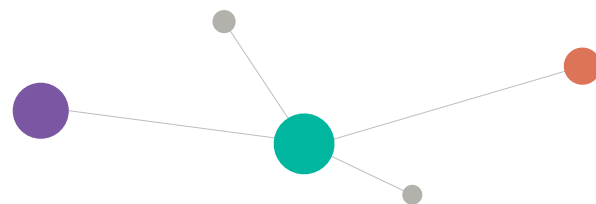
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Executive Summary

An effective and sustained collaboration with industry and employers ensures that the education and training provided by colleges and institutes respond to the current and emerging needs of the labour market and of communities. At the heart of these college-employer connections are **Program Advisory Committees** (hereafter referred to as PACs), which bring together all parties in what has come to be the most consistent and structured expression of college-employer connections. While the value proposition of PACs is widely agreed upon, little research has been done to document their use or to identify and compare practices across programs, institutions, and jurisdictions. This initial study attempts to narrow some of the existing knowledge gaps by briefly outlining legislative and policy requirements for PACs in different jurisdictions, and by providing a preliminary perspective on the current state of PAC use across the country. This work also allows for the identification of some leading practices and policy insights of potential benefit to colleges and institutes and other post-secondary education (PSE) institutions, employers, and government policy makers.

The study provides an initial description of PACs, their purpose, governance, structure, and functioning. Data and information were gathered through literature and documentation reviews, an online survey sent to all Colleges and Institutes Canada (CICan) members, and 35 semi-structured interviews with key participants from colleges and institutes, universities that were previously colleges, PAC members and representatives from industry and community organizations from across the country. An analytical framework was developed as a guide for the study, that could be used as a basis for the framework of future comparative studies. In general, there are few formal processes in place to evaluate the impact or the efficiency of PACs; current thinking about PACs' efficiency is very much process-oriented. While many colleges and institutes see the necessity of assessing the impact of their PACs with more outcome-based measures, they do not have appropriate frameworks in place. Others prefer not to conduct such evaluations so as not to risk alienating members, who sit on the committee as volunteers. All respondents, however, have expressed interest in better understanding how PACs are modelled and how they function in other institutions.



It can be said that there is no unique Canadian PAC model. While PACs exist in most jurisdictions and share a common philosophy, there exists an important diversity in provincial legislations and policy requirements. Even within the same jurisdiction, individual colleges and institutes tend to have their own policies, regulations and terms of reference to regulate institutional PACs. The case of Quebec stands alone with its specific range of approaches to industry and employers' involvement in college programs' development. This study aims to shine light on the variety of practices and the perceived benefits and challenges thereof that exist across the country.

The success of PACs is deeply rooted in the human element. It is determined by several factors, which tend to be common across institutions and jurisdictions: i) PAC members who are knowledgeable and strategic, visionary and active, free from any conflict of interest, and who have the ability and willingness to ask insightful questions, provide feedback, labour market intelligence, and long-term advice; ii) leadership from the PAC Chair and the college official responsible for the PAC; iii) diversity among PAC members in terms of backgrounds, perspectives, gender, indigenous and ethnic minority origins, as well as a cross-representation of industry, with complete membership according to program and industry relevance; iv) a well-defined mandate with clear objectives and agenda items that are action-oriented and that allow for follow-ups. Issues of significant and widespread importance, such as Indigenous education, are part of effective PACs' discussions and advice. A successful PAC is deeply rooted in the community's needs and understands well the community's most significant concerns.

Colleges and institutes perceive numerous benefits that PACs' ongoing efforts offer students, faculty, and the institution itself. This specific form of partnership with industry highlights an evidence of need from employers and ensures curriculum currency and program relevancy in alignment with changes in community and labour market needs. It keeps delivery standards up-to-date and contributes to program growth.

Successful PACs contribute to building a culture of positive connectedness between colleges and institutes, industry and communities. They also contribute to enhancing an outcomes-based organizational culture, which has multiple benefits for colleges and institutes, their staff, and their students. A preliminary exploration of how universities that were previously colleges approach PACs indicates that former colleges and institutes keep their PACs in place and see them as a constructive means of increasing the relevancy of their academic programs. The mobility of people carries the mobility of ideas: many PACs have been initiated as a result of faculty and leaders moving to another PSE institution and creating PACs there. Ideas can also travel through the sharing of best practices. To ensure optimal performance for their PACs, all institutions support them by providing resources in various ways, most often by providing clerical, administrative, and logistics support.

Yet the logistical efforts required of colleges and institutes can also sometimes represent a challenge for them, along with other barriers to making PACs more efficient. Time commitment is the most commonly cited issue and attracting high-level industry representatives can be a challenge, as PAC members are often leaders in their communities and are therefore often approached for a variety of contributions. The clustering of PACs, when possible, is seen as a means to overcome time constraints and to involve higher-level industry representatives with more strategic, industry sector-wide perspectives.

Attracting or renewing a diverse PAC membership may be particularly difficult for some programs, especially for remote campuses or where there is a lack of, or limited industry diversity. Stakeholders also stress the importance of PACs' focus on the long-term vision of industry, learning needs and priorities. Enhancing the role and the value of PACs, and their potential for forward-thinking and more strategic advice, is seen as imperative to responding to current realities. Many colleges and institutes see a need for setting a common, countrywide vision for PACs and their role and outcomes. They see CICA as having an essential role to play in such an undertaking.

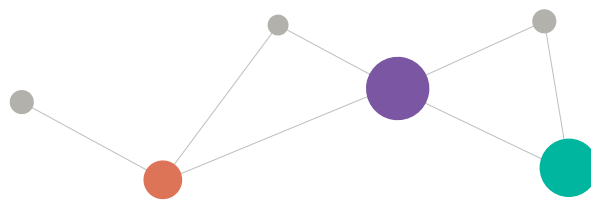
This study identifies remaining knowledge gaps that require attention in order to further enable a positive impact of PACs on PSE institutions, their students and faculty, as well as on industry, employers, and the labour market in general. It also discusses the potential role national PSE members' associations and government agencies can play in closing these gaps through knowledge development and the collection and dissemination of leading practices, as well as by developing mechanisms to enable joint efforts in extended networks for strategic education-industry connections. Finally, the study raises questions about the future of PACs and identifies potentially important implications for prospective policy developments.

I. Introduction

For over 50 years, colleges and institutes have played a central role in the Canadian economy by providing Canadians from all walks of life with the skills they need to join the workforce and sustain rewarding careers throughout their working lives. Colleges and institutes are deeply rooted in their communities and their primary mission is to serve the economic and social needs of these communities. They achieve their mission by maintaining education and training programs that are recognized for their economic, social, and professional relevancy. One of the key ways of ensuring this relevancy is to establish a formal relationship with, and seek advice from, community members, local industry partners and employers who have a particular knowledge of, and interest in a given program. Effective and sustained collaboration between colleges and institutes and employers is an essential component of colleges and institutes' response to the current and future challenges faced by the communities they serve. Deep connections to industry and employers aim to ensure that the education and training colleges and institutes provide responds to the current and emerging needs of the labour market.

The relationship between employers and colleges and institutes is often described as “symbiotic” “because each needs the other to be successful” (Litwin, 2012). When compared to the relationship between universities and employers, Litwin found that “many university programs do not have employer advisory groups whereas nearly all college programs do”. “The main reason is that in the university environment, employee advisory groups are optional and, in many cases, might be seen as interference or even an infringement on academic freedom” (Litwin, 2012).

PACs are a distinctive feature of the relationship that colleges and institutes, in most parts of the country, maintain with industry and employers. Created by colleges and institutes, PACs are mainly comprised of industry and community representatives. Their primary role is to provide input and advice on program structure and curriculum, based on current and anticipated labour market needs, industry trends and changes occurring as a result of advances in technology and professional practices. The industry-academic linkages created through PACs can also serve to identify work-integrated learning (WIL) opportunities for students and job placements for graduates. They can also lead to faculty recruitment,



applied research partnerships, training contracts for upgrading the skills of the current workforce, equipment donations, the creation of scholarships and awards, and support for capital projects.

Little has been done to comprehensively research and document the value proposition of PACs. This study aims to narrow some of the existing knowledge gaps by providing a preliminary perspective of the current state of PAC use across the country and enabling the identification of leading approaches of particular benefit to students, employers, institutions, and the labour market in general.

More specifically, this preliminary study of PACs in Canadian colleges and institutes aims to:

- provide a snapshot of the current state of PACs in Canadian public colleges and institutes;
- capture the richness of diverse voices and approaches from across the country to enable knowledge development, learning, and leading practices dissemination;
- identify key success factors and barriers to PACs' efficiency;
- identify leading practices in PACs' functioning and use;
- define major knowledge gaps and recommendations for future studies and action;
- identify and report key insights with potentially important policy implications.

The study will also contribute to the following more strategic objectives:

- understand the way colleges and institutes interact with and respond to industry;
- improve ESDC's understanding of PSE's contribution to the development of advanced skills;
- establish a comparative framework to identify best practices, in Canada and internationally, related to employer-PSE partnerships;
- study barriers to PSE institutions-industry relations;
- inform future policy work on ensuring that the PSE sector has the knowledge to form strategic partnerships and create work-integrated learning opportunities for students.

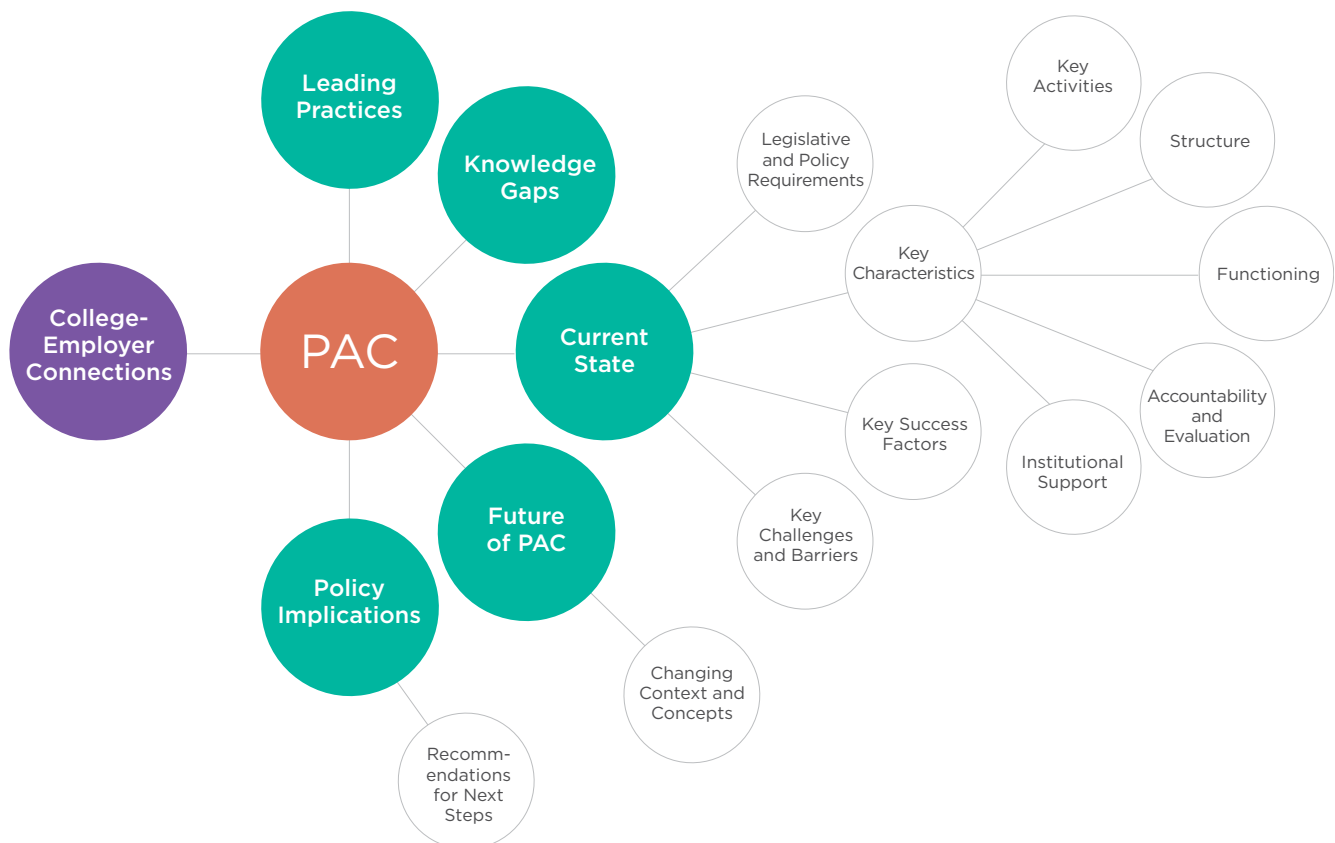
II. Methodology

II.1. Analytical Framework

An analytical framework (Figure 1) was developed as a guiding frame for the study and to respond to the following key research questions:

- What are the current legislative and policy statements with regards to PACs?
 - Are there differences between provinces and territories and if so, what they are?
- What are the key characteristics of PACs (governance, structure, functioning, activities, outputs and outcomes, interaction with colleges and institutes)?
- Is there a common framework to describe/evaluate PACs?
 - Can we talk about an existing national model for PACs?
 - What are/would be the key characteristics of such a model?
- What are the main benefits of PACs for colleges and institutes, students, graduates, employers, communities, etc.?
- What are the main challenges for and barriers to more efficient PACs?
- What is the perceived impact of PACs on:
 - curriculum development?
 - college performance?
 - work-integrated learning?
 - institutional partnerships?
 - student success?
 - graduates' work placement?
 - meeting labour market needs?
- Are there any methods established to determine the value of PACs? How can we determine best practices in the use of PACs?
- What are the key knowledge gaps and policy implications that have to do with PACs?

FIGURE 1. ANALYTICAL FRAMEWORK



II.2. Key Methods

The study’s methodology includes:

- a review of relevant literature and documentation
- an online survey of CICan member colleges and institutes on their policies, practices and experiences with PAC
- interviews with key informants: PAC members – past and current, and post-secondary education institutions (colleges and institutes and universities) officials
- the identification of key success factors and barriers for efficient PACS
- the documentation of leading practices
- the identification of knowledge gaps and recommendations for future studies and action

In October 2016, all CICan member institutions received an online survey which aimed to describe the current state of PACs in the Canadian college system: their legislative and policy foundation, their number, structure, key activities, functioning, value and efficiency, main benefits for colleges and institutes and industries, key challenges and barriers, and best practices.

35 of CICan’s 127 members responded to the survey, which represents a response rate of 28%. Table 1 details the number of responses by geographic area:

TABLE 1. GEOGRAPHIC DISTRIBUTION OF SURVEY RESPONDENTS

GEOGRAPHIC AREA	NUMBER OF RESPONDENTS	% OF TOTAL RESPONDENTS
West (incl. Yukon)	17	48.5%
Ontario	10	28.5%
Quebec	3	9%
East	5	14%
TOTAL	35	100%

Quebec colleges and institutes' low response rate to the survey questionnaire (3% vs. 28% of CICan membership) can be explained, at least in part, by the uniqueness of Quebec's college system and its approach to colleges and institutes' program development. This will be described in more detail later in this report (p.13). This response rate could explain, at least in part, the overall response percentage as well.

Information obtained through semi-structured interviews supplemented the qualitative data acquired via the survey. 35 interviews were conducted with PSE institutions' officials and PAC members – current and past – across the country. Table 2 outlines the number of interviews by geographic area and by type of interviewee affiliation.

TABLE 2. NUMBER OF INTERVIEWS BY GEOGRAPHIC AREA AND INTERVIEWEE AFFILIATIONS

GEOGRAPHIC AREA	PSE Affiliation (College/University)	PAC Members (Industry/Community/Professional association/Union)	Number of Interviews
West (incl. Yukon)	8	3	11
Ontario	6	5	11
Quebec	6		6
East	5	2	7
TOTAL	25	10	35

PAC members act as representatives of their respective industries, employers, community organizations, and professional associations. Ex-officio members can include college officials, graduates, and students. Interviewee selection aimed at maximally equitable distribution among geographic regions, colleges and institutes, industries, employers, and community representatives, with consideration for gender, official languages, and indigenous origins. As PACs are primarily college and

institute-based phenomena, the study also examined cases of universities that were previously colleges and institutes for insight on the role PACs play and are seen to play in PSE institutions' relationships with industry.

The analysis of survey results and interviews allowed for the description of PACs' structure and functioning, as well as the identification of key success factors and barriers to efficiency and the identification of some leading practices.

III. Defining a PAC

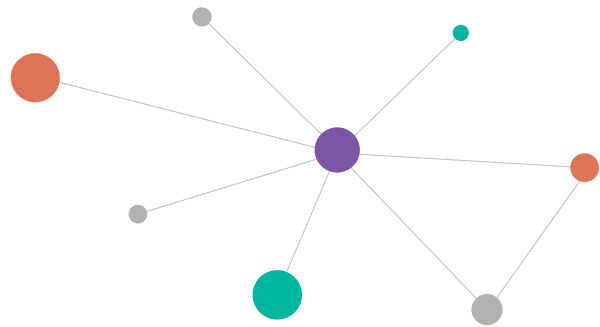
III.1. What it is intended to be

A PAC can be defined as an advisory committee that contributes to an academic program's curriculum development and/or review. It also provides linkages between industry, employers, and the community. PAC members are recognized for their reputable knowledge and competence in their occupational field; they act as volunteers and should be free of conflicts of interest. The French translation for PAC, *Comité consultatif de programme* or *Comité aviséur de programme*, may have a different meaning in different jurisdictions or institutions, i.e., identical or similar vocabulary may indicate different concepts. This is the case in Quebec, which will be elaborated on later in this report.

PACs have been a defining feature of North American community colleges and institutes. Traditionally, colleges and institutes have consulted with employers about full-time programs and other services, usually through their governance boards or through various committees (Thom, 2004), including PACs.

Input from PACs is one of the instruments available to colleges and institutes when developing or reviewing instructional programs (other means include in-house or contracted research of labour market needs, informal or formal consultations with industry and employers, etc.) However, unlike numerous informal connections between colleges and institutes and industry, PACs provide a more structured, formal approach to college and institute-industry relationships which, contribute to more inclusive and transparent relationships. By opening the door, through PACs, for input to their curriculum from a variety of employers, colleges and institutes intend to serve the needs of the entire community and the community of employers and not a specific employer or a group of selected employers. Colleges and institutes tap into the advantage of their PACs industry members' knowledge and have firsthand access to new techniques, materials and applications introduced in the industry and can therefore ensure their programs stay current and relevant.

Despite the essential role PACs play in college and institute life and student success, as well as in serving community and industry needs, PACs seem to be very little known by



the general public and even by researchers of the Canadian PSE system. There are significant research and knowledge gaps related to PACs in Canada.

III.2. Some historical perspectives on PACs

PACs are a defining element of North American community college systems and they seem to have emerged early on in their history. However, there is very little research on PACs at Canadian colleges and institutes and we could not find any evidence of recent research on the subject. Henderson (1991) observed that there is much less attention given to advisory committees in the literature relating to Canadian community colleges than in American sources. But even there, a quick literature review shows that the vast majority of the research work was performed in the 1970s and the 1980s. Therefore, little is known about the history, the evolution, and the key characteristics of PACs.

The primary function of all colleges and institutes – to prepare graduates for the workforce of their province/territory, region and community – seems to be at the origin of colleges and institutes' advisory committees, including PACs. In order to achieve their primary function, colleges and institutes attempted to establish close connections with business and industry through advisory committees (Henderson, 1991).

The need for PACs was reinforced by the context of the 1970s and early 1980s when colleges and institutes, "confronted by new imperatives - recession, rationalization, and restraint – the watchdogs which shaped higher education" (Dennison and Gallagher, 1986, p.83), had to look even more for expert industry advice.

The success of PACs has been an astonishing one if numbers can speak to that effect: in 1981, in Ontario, “there were 19 per cent more committees operating than required and in 1989, 11 per cent more committees operating than required” (Henderson, 1991). “In 1996, more than 10,000 employers sat on program advisory committees across the province [Ontario]” (Leppard, 2004).

Governments had to enable colleges and institutes to establish or reinforce college-industry connections in a way so as to benefit all stakeholders.

III.3. Governments’ approaches to PACs: variety under an overall similar philosophy

In Canada, where no national education system exists, provinces and territories have a primary responsibility in delivering education services to their populations and to determine the governance, administration, structure, and curriculum contents of education programs, which results in a diversity of education systems, including college education systems.

The federal government has a role in continuous education and professional training, as in apprenticeship training and in setting/applying rules in certain accreditation programs, especially those with international prospects. It also provides labour market information and statistical data about PSE graduates and enrollments, as well as financial support to training programs and students.

While almost every provincial and territorial jurisdiction expresses in its college- or PSE-related legislation and/or policies the necessity for colleges and institutes and PSE institutions to establish and maintain effective and productive relationships with industries and employers based in the communities that they serve, the mandatory nature of these connections varies from jurisdiction to jurisdiction. As a rule, institutions’ Boards of Governors have to include representatives from local and regional industry and employers.

While college PACs exist in most Canadian provinces and territories, there exists important diversity in provincial and territorial legislation and policy requirements (and lack thereof). PACs are backed or not by different (binding or not) mechanisms, clearly expressed or not in provincial and territorial legislation or bylaws. Most provinces and territories share a similar philosophy and definition of a college PAC as a committee whose main purpose is to advise colleges and institutes regarding the development, maintenance, and community acceptance of their programs. The committee has an advisory and not an administrative or executive function, and it is composed of volunteer experts in their occupational field.

Ontario (through the *Ontario’s Colleges of Applied Arts and Technology Act 2002*, the Framework for Programs of Instructions (2003, revised 2005) and Minister’s Binding Policy Directive¹) is the province that seems to set the clearest expectations for each college to have a PAC for each program or cluster of programs of instruction.

“The board of governors is to ensure that an advisory committee for each program of instruction or cluster of related programs offered at the college is established and is made up of a cross-section of persons external to the college who have a direct interest in and a diversity of experience and expertise related to the particular occupational area addressed by the program. The board of governors is to establish in by-law the structure, terms of reference, and procedures for program advisory committees.” – Government of Ontario, Ministry of Training, Colleges and Universities. Framework for Programs of Instructions, Minister’s Binding Policy Directive (2003)

¹http://www.tcu.gov.on.ca/pepg/publications/GovAccount_Directive2010.pdf

In Manitoba, *The Colleges Act*² (1991) stipulates that the Minister “may appoint a person or a committee to review and evaluate any college program or service or any other matter relating to the development, content or delivery of a college program or service”.

*New Brunswick Community Colleges Act*³ (2010) stipulates that, as colleges and institutes develop new program proposals and conduct internal reviews of existing programs, PACs with external representation from industry are employed in the process. Proposals on the need for new programs and significant program changes are reviewed according to guidelines approved by the Minister. Programs that undergo less significant change to curriculum are reviewed by the colleges and institutes in consultation with related PACs.

Other jurisdictions set expectations for colleges and institutes’ Board of Governors to establish PACs. For example:

British Columbia’s eleven public colleges and three public institutes, established under the *College and Institute Act*⁴ (1996), are governed by boards of governors responsible for managing and directing the affairs of the institution. Each institution, other than the Justice Institute of British Columbia, must have an education council (College and Institute Act 14 (1)). The education council’s independent powers include the power to set examination policies and to set curriculum content for courses leading to certificates, diplomas, and degrees. Powers that are exercised jointly by the board and the education council include curriculum evaluation. In its advisory role, the education council consults with community and program advisory groups concerning the institution’s educational programs (23(1)).

In Manitoba, under *The Colleges Act*⁵ (1991) “the board may establish a regional campus advisory committee consisting of not more than 10 persons to advise the board on the programs and services of the regional campus.”

In Prince-Edward-Island, *The Holland College Act*⁶ stipulates that “the Board of Governors of the College can establish committees and advisory bodies”.

Newfoundland and Labrador’s *College Act*⁷ (1996) stipulates that the Board of Governors of the College can create academic boards and committees.

In Nova Scotia, under the *Community Colleges Act*⁸ (1995-1996), the Board may establish PACs for one or more programs of study offered at the College to be comprised of members appointed by the Board and, subject to the regulations, by the Minister. Furthermore, the Board shall establish a PAC for any program of study offered at the College in relation to a trade that is within the mandate of the Agency. The Board must notify the Apprenticeship Board of the Agency when a PAC is to be established in relation to a trade that is within the mandate of the Agency. The Board must notify the Minister when a PAC is established. The duty of a PAC is to advise the Board and make recommendations to the Board regarding programs of study and new programs of study and perform such other functions as are determined by the Board.

²<http://web2.gov.mb.ca/laws/statutes/ccsm/c150-1e.php>

³<https://www.gnb.ca/0062/acts/BBA-2010/Chap-N-4-05.pdf>

⁴http://www.bclaws.ca/civix/document/id/consol20/consol20/00_96052_01

⁵<http://web2.gov.mb.ca/laws/statutes/ccsm/c150-1e.php>

⁶<https://www.princeedwardisland.ca/sites/default/files/legislation/h06g.pdf>

⁷<http://www.assembly.nl.ca/legislation/sr/statutes/c22-1.htm>

⁸<http://nslegislature.ca/legc/statutes/community%20colleges.pdf>

The distinctiveness of Quebec's public colleges and their relationship with industry

Quebec's college system is quite distinctive. It comprises two streams: 1) a university preparation stream of two years, required for any Quebec student intending to attend a university in Quebec; and 2) a career preparation stream of three years. Highly centralized, college programs and institutional structures are closely aligned with Ministry of Education standards.

The *General and Vocational Colleges Act*⁹ (1997) stipulates that a regional college shall be administered by a board of governors which includes “two persons appointed by the Minister from within enterprises in the territory principally served by the regional college which operate in economic sectors corresponding to programs of technical studies implemented by different constituent colleges, where applicable”. The board shall establish an academic council and determine its composition by by-law. The function of the academic council is to advise the board on any matter concerning the programs of studies dispensed by the college and the evaluation of learning achievement, including the procedures for the certification of studies. The academic council is, however, internal in nature as it is composed essentially of college officials, teachers and students.

Instead of PACs at the institutional level, the *Ministère de l'Éducation et de l'Enseignement supérieur* favours partnering with industry representatives in a centralized program development process led by the Ministry. The development of technical studies programs has to respond to three main requirements: the needs of the labour market and the targeted population, the orientations of the provincial education system, and the norms and the policies of college education. Consultation committees are created at every stage of the program development process and various actors

from industry and education fields contribute their knowledge and expertise to the process.¹⁰ Therefore, this program consultation committee terminology has a different meaning in Quebec than in the rest of Canada, where colleges and institutes' PACs are typically constituted at institutional and local levels.

The practice of industry and employers' involvement in college program development and review is even more diverse and has different expressions.

The five *Écoles Nationales du Québec* (National Schools of Quebec) have different approaches in establishing relationships with industry and employers. Each of these schools is affiliated to a public college but has its own functional links with the world of work. Most of them have a committee or an advisory council to guide them in their development and future orientations, consisting primarily of industry representatives, but also of representatives from the education sector and government departments. The program curriculum must not only satisfy the requirements of the Quebec Ministry of Education but also meet the standards as set by Canadian and international agreements. Thus, the existence of national and international industry standards and federal regulations seems to play an important role in PACs' creation and functioning.

Two mini case studies (see Box 5) attempt to demonstrate some National Schools' approaches in their relationship to industry and employers.

A few CEGEPS in Quebec have established PACs for some of their technical programs in the way that they exist in colleges and institutes in the rest of Canada but they seem to be an exception.

⁹<http://legisquebec.gouv.qc.ca/en/ShowDoc/cs/C-29>

¹⁰Ministère de l'Éducation du Québec (2002), *Élaboration des programmes d'études professionnelles : Cadre général-Cadre technique*.

III.4. Individual college and institute regulations

Many colleges and institutes have established their own regulations, policies, and terms of reference for their PACs in response to governments' legislative requirements. With various degrees of detail, they formalize PACs' roles, structures, and functioning. There is an important diversity of approaches regarding PACs among college institutions within the same jurisdiction (for example, some colleges and institutes may have a specific policy or guidance while others do not).

Some colleges and institutes have established an *intermediary structure* between the PACs and the Board of Governors. For example, as per By-Law 4 (PACs) by the Board of Governors of Loyalist College in Ontario "the Chairs of all Program Advisory Committees (PACs) and other special purpose or ad-hoc advisory committees will form an Advisory Council to the Board of Governors and meet periodically with the Board and Administration to discuss matters of college-wide concern."¹¹

Section 4 of this report further describes the current state of PACs' roles, structures and functioning across the country, as per survey and interviews' findings.

-
- **There is no unique Canadian college PAC model.**
 - **There are multiple approaches in the various jurisdictions and among institutions but most of them share a similar definition and philosophy of PAC.**
 - **The case of Quebec stands alone with its specific approaches to industry and employers' involvement on college programs development.**
 - **Even within the same jurisdiction, individual colleges and institutes tend to have their own policies, regulations, and terms of reference to regulate institutional PACs.**
-

III.5. International perspectives

Preliminary research gives no evidence that PACs exist outside of North America, i.e., PACs appear to be an essentially North American phenomenon. Their purpose of linking colleges and institutes to community, employer and industries' needs is embedded in the very reason for community colleges and institutes' creation as a different type of PSE institution (from universities), one directly involved in building the workforce of each state or province and as an instrument of governments' economic and social policy. More recently, some North American universities have established Industry Advisory Boards or Committees to provide guidance to the academic department on academic issues and strategic planning (Craig, 2009). These Boards or Committees seem to exist mainly in Engineering Departments.

¹¹Loyalist College. Policy and Procedures Manual. <http://www.loyalistcollege.com/wp-content/uploads/ACAD-105-Advisory-Committees-with-Agenda1.pdf>

PACs in United States' community colleges and institutes

The establishment of PACs (also known as curriculum advisory committees or vocational advisory committees) in United States (U.S.) community colleges was embedded in the U.S. tradition of community oversight over local schools. However, the importance of community colleges and their vocational programs' contribution to the country's skills development extended the area in which these advisory committees operate: at local but also at state and national levels.

PACs are "one of the most common methods, used by educators in the U.S. to keep programs current" (Young, 1997). In many states, community colleges are required, by state and federal legislation, to maintain at least one vocational education local advisory council. The federal Vocational Education Act (1963, amended 1976) authorizes the establishment of national, state and local advisory councils. The National Advisory Council for Vocational Education, whose members were appointed by the President of the United States and represent business, labor, education, special needs groups, and the general public, was required to conduct evaluations, provide technical assistance to State advisory councils on vocational education, and to advise the President and the Congress on the administration and operation of programs under the Act. The State advisory councils on vocational education were required to advise the State board on vocational education on the State plans for vocational education and to evaluate programs, services, and activities under the Act. Local school district level advisory councils, composed by representatives of the general public, business, industry and labour, were responsible for providing information on current job needs and the relevancy of the vocation programs offered (Wolfe, 1978).

According to Leppard (2004), vocational advisory committees at the district level (as required by federal legislation, "provide a forum for discussion between industry and education at the district level but are not intended to supply aid at the program level for individual colleges."

There are two common types of vocational-technical advisory committees in the U.S. college vocational education system: general advisory committees with a focus on the overall mission of the college, and PACs, which serve a specific vocational-technical program. Industry representatives recognized as experts in their field form the membership of both types of committees and their primary role is to advise the college with regards to the program curriculum and delivery methods, to ensure they meet the requirements of the industry and provide relevant education experience to students (Young, 1997). The U.S. Department of Education and its various offices, such as the Office of Vocational and Adult Education or its equivalent over time, publish or sponsor the publication of various resources and guides and provide assistance in developing, organizing and operating PACs in vocational/professional environments. For example, the 190-page Vocational Instructional Program Advisory Committee Resource Guide (Rice & Buescher, 1984) provides an introduction to and information on, the mission, mandate, structure, functioning and activities of instructional PACs, in addition to strategies and techniques to support these advisory committees. Most states also provide guides for PAC operating procedures and examples of generic bylaws that can be adapted to the need of each program committee (Young, 1997).

The purpose of PACs in U.S. community colleges and high schools providing vocational-technical education can be summarized in 5 key common roles:

- advise on curriculum and instructional methods;
- advise on equipment and facilities;
- recruit and advising students;
- promote vocational-technical education to industry and the community; and
- evaluating programs.

Other countries' approaches to industry and employers' involvement with college education programs

Many other countries strive to ensure proper relationships between their PSE institutions and the industries and employers who hire their graduates. The overall objective is the same: ensure adequacy and relevancy of training programs for the labour market. The relationship between education institutions and employers may take different shapes but most often falls under the scope of work-integrated learning opportunities, such as internships,

practicums, or co-op programs. When advisory groups exist, they do not seem, however, to espouse the mandate and structural features of North American college PACs.

Box 1 provides information about some current and planned efforts to that effect in the New Zealand PSE system.

BOX 1. RECENT ACADEMIC-INDUSTRY RELATIONSHIP INITIATIVES IN NEW ZEALAND

“There are several ways that employers can interact with the tertiary system to influence the nature of provision. These include formal mechanisms, such as engagement with curriculum development and New Zealand Qualifications Authority (NZQA) quality assurance processes. NZQA is a government agency whose role is to ensure that New Zealand qualifications are regarded as credible and robust, nationally, and internationally.

If a tertiary education provider wishes to develop a new programme of study or qualification, they must first go through an approval process that is administered by NZQA or, in the case of universities, the Committee on University Academic Programmes (CUAP). Both approval processes include steps that require evidence that a qualification will be useful, relevant and of value to learners, employers, industry, and communities” (NZQA, 2014a, p. 8). Similarly, CUAP requires that universities establish the acceptability of new programmes through engagement with relevant communities including employer, industry and professional bodies (CUAP, 2015). Part of the qualification development process involves developing an outcome statement for prospective employers, which includes a profile of what a person awarded the qualification must be able to “collectively do, be and know” (NZQA, 2016).

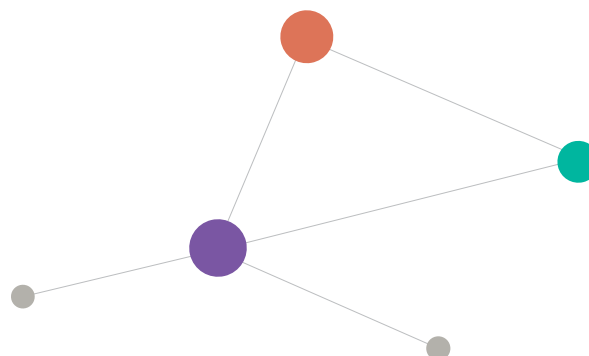
NZQA will not approve a programme, or accredit an institution, until the specific requirements of relevant registration bodies have been met. These requirements are set out in written agreements between registration bodies and NZQA (NZQA, 2014b). In some instances, the government has established specific mechanisms to improve the links between education and employment. The Sector Workforce Engagement Programme is another government initiative that addresses education and employment issues.

From 2017, employers will be able to provide direct feedback on the value of qualifications held by their employees through a “Rate My Qualification” survey. The survey will pose questions to both employers and recent employees on how well the recent employee’s qualification has prepared them for their current role. The Tertiary Education Commission (TEC) will be responsible for collecting and collating the dataset, and will provide the data to Tertiary Education Organizations (TEOs) for publication on their websites. The data will also be made available for third-party information providers to publish, allowing users to compare information across a range of providers and qualifications.”

Source: New Zealand Productivity Commission. (2016). New models of tertiary education: Draft Report. Available from www.productivity.govt.nz/inquiry-content/tertiary-education. September 2016. http://www.productivity.govt.nz/sites/default/files/FINAL%20Tertiary%20education%20draft%20report_2.pdf

IV. Current state of PACs in Canada's public colleges and institutes (as per survey results and interviews)

The number of PACs varies greatly from institution to institution and does not appear to follow any regional trend (except for Quebec). Survey results show the number of PACs per institution ranges from 1 to 145, with an average of over 48 per 100 programs. While many colleges and institutes have opted for one PAC per program for all programs (e.g. the Southern Alberta Institute of Technology), others have established one PAC per program for some programs or one PAC per program cluster or a combination thereof (e.g. Selkirk College).



IV.1. Governance and structure of PACs

Existence of formal policy or directive

The vast majority of the colleges and institutes who responded to the survey have a formal policy or a directive governing their PACs. These policies are aligned with provincial legislation requirements if such exist. They describe, in a great variety of detail, the purpose, structure and functioning of PACs. Most of the colleges and institutes make their PAC policy or directive public and post them on their website. A few colleges and institutes also post their PACs' names and even the names of their PAC chairs and members online.

Relationships between a college's PAC and the Board of Governors

There is a multitude of relationships between college PACs and their Board of Governors (BoG). The spectrum varies from no relationship at all to a significant connection, sometimes embedded in reporting and accountability mechanisms. For example, some colleges and institutes indicated that their BoG feels the need to get involved or start being involved in PAC members' selection, while others require that PAC Chairs submit an annual report to the Board of Governors. These reports are intended to be considered at the time of the institution's strategic orientations development or strategic planning exercise.

Some colleges and institutes make a clear link between the existence of productive relationships between PACs and BoG and the strategic use, by the institution, of external

advisory bodies, such as PACs and BoG. A well-defined relationship between PACs and the BoG is seen as an important element in the alignment of externally received advice towards more strategic and future-oriented goals.

Key criteria for becoming a PAC member

Institutions rely on a wide set of criteria to guide them in the nomination and appointment of PAC members. First and foremost, institutions look for skills, knowledge, and expertise. Potential members should not only demonstrate thorough proficiency in their chosen field, their experience should be both current and relevant to the program of study in question. It is essential that a PAC member have an understanding of the various concentrations in their particular field of study. As a team, they should represent the diversity of the current state of industry and employers. Next, as PAC members often provide students with opportunities, such as placements, co-ops, practicums, or internships, their reputation should be positive, as can be evidenced by community involvement. Last, but not least, geographic location and availability to provide regular and valuable input are important criteria for becoming a PAC member.

Student PAC members, when they exist, are elected by their constituent body. They may or may not have right to vote. Certain institutions also appoint college graduates but most often these graduates are also industry or business representatives.

PAC membership selection

Nearly all the institutions that responded to the survey reported that PAC members are selected based on their nomination or recommendation by institution or community representatives. In general, faculty and administrators possess extensive industry experience themselves and have maintained professional affiliations and contacts; many tap into their network to solicit partners' participation in PACs. In some institutions, for example, George Brown College, ON, recommendations also often come from current and past PAC members. At Humber College, ON, recommendations also come from accreditation bodies, industry associations, and professional organizations.

Some institutions employ additional means for selecting PAC members. For example, Vanier College, QC, solicits employers who take in the college's students for internships or placements. Moreover, some of its health-related programs have defined membership, with all local hospitals getting a seat at the table. At Yukon College, YT, PAC members may be recommended by their First Nations government or because they hold a specific position with the territorial government. For all institutions, it is necessary that the selection of a PAC member be approved by a representative of the institution, usually a Dean or Chair.

“Selecting PAC members is more of an art than a science”

- Interview snapshot

Appointment of PAC members

The process of appointing PAC members varies greatly from institution to institution. While many follow a rather informal process, others follow a rather intricate one, for example, Conestoga College in Ontario, which has set up an Academic Coordinating Committee (inclusive of the

President and all senior administrators) that chooses PAC members, a choice that is then reviewed by a sub-committee of the Board of Governors. Apart from these examples, most institutions ask – in order of frequency – that the President, Dean, Department Chair, or Vice-President, Academic, appoint PAC members. In many institutions, these decisions are made in consultation with the Board of Governors, staff, or the department in question, who can recommend potential PAC members. Furthermore, in certain departments and in certain institutions, for example, the Justice Institute of British Columbia, only PAC Chairs are nominated in this way; it is subsequently their responsibility to appoint the other members of the PAC.

Typical term of office

For the vast majority of PAC members across institutions, the typical term of office is 3 years. Survey results indicate that this number ranges from 1 to 6 and that terms of office are often not identical from PAC to PAC within the same institution, generally varying from 2 to 4 years. In many cases, terms are renewable (with a cap at 6 years at Kwantlen Polytechnic University (KPU), BC, for example). In contrast, at Selkirk College, BC, PAC policy stipulates that all members are required to serve for a term of two years with the possibility of reappointment. In cases where a vacancy occurs, the President may appoint an interim member to complete the balance of the term in question.

Typical number of members

The number of members sitting on PACs does not vary significantly from institution to institution. With a few exceptions, where the number of PAC members can reach 34, survey results show a range of 5 to 15 members per PAC, with an average of 10 members. It should be noted that many institutions reported an average number of PAC members rather than actual numbers. PAC membership can differ significantly from one PAC to another, within the same institution, generally falling within the 5-15 range.

Sub-committees: existence and purpose

Less than a third of the institutions that completed the survey report their PACs form sub-committees. Though rather rare and dependent on the PAC and its size and membership, sub-committees do exist across provinces and territories. When sub-committees are formed, they mostly take the shape of working groups. For example, certain PACs have formed sub-committees on methodology, program evaluation, program revision, and program implementation. At Conestoga College, ON, certain sub-committees are formed, for example, for program review, program development, student awards, and student engagement. Some institutions, like St. Lawrence College, ON, also report the existence of awards sub-committees and working groups for special projects.

Assessing PACs' value and efficiency

Less than one third of institutions that responded to the survey reported conducting an assessment of PACs and their activities and efficiency. Those that do, rely on different evaluation means, from self-evaluation and informal meetings to annual reports to the Vice-President or Dean, Academic Affairs, or to the Board of Governors, as mandated by PAC policy.

Leading practice examples

- **Portage College, AB, conducts an annual PAC Evaluation Survey;**
 - **At Vancouver Community College, BC, PAC policy states that the PAC should evaluate its own performance at least once every two years; the College provides the PAC with an evaluation template and requires a report on PAC activities as part of its program review exercise;**
 - **At Centennial College, ON, annual PAC Chair reports are reviewed by the Centre for Academic Quality and the work of PACs is considered as part of the program's Comprehensive Program Quality Review (approximately every 5 years).**
-

IV.2. The functioning of PACs

Frequency of PAC meetings

According to survey results, all PACs meet a minimum of once per year; the vast majority will meet twice; some will even meet three times in a given academic year. Holland College on Prince Edward Island further requires that PAC members be available to provide feedback on the addition or deletion of a course to/from an area of specialization or program outside of the normal meeting process.

Key activities of a typical PAC

The table below provides a list of some of the key activities PACs are engaged in and the percentage of institutions that have indicated in the survey their PACs engage in such activities.

TABLE 3. KEY PAC ACTIVITIES (AS PER SURVEY RESULTS)

Activities	% of responding colleges and institutes
Providing information about labour market developments, new jobs, and emerging occupations	91%
Providing input to curriculum development, reviews, and updates	91%
Contributing to evaluation of existing programs	86%
Promoting students' increased exposure to work integrated learning (WIL), e.g. workplace experiences through internships, coops, etc.	83%
Identifying requirements for new programs	77%
Promoting public awareness of the program with employers, governments, unions, professional associations, and appropriate community groups	74%
Defining relevant program objectives	69%
Promoting employment opportunities for graduates	69%
Advising on the enhancement of learning materials and technical equipment	66%

Work plan or work program

Less than a quarter of institutions report that their college's PACs have a work plan in place.

Interaction between PACs

About a third of institutions report in the survey that their PACs sometimes interact with one another. As Nova Scotia Community College explains, this is mostly done to "optimize synergies between like programs". Vanier College, QC, refers to these associations as "'constellations' of programs beginning to work together to serve local needs". While in most cases institutions report the existence of program clusters to strengthen PACs and make them more efficient, some point to certain PACs that work together to support career events for students, as is the case at Centennial College and Conestoga College. At St. Lawrence College, where programs can be delivered on multiple campuses in different communities, PACs located in each community/campus for the same program meet once annually separately and once annually together.

Limited interaction or interconnectivity between colleges and institutes' different PACs and PAC outcomes may also restrain institution-wide perspectives and lead to missed opportunities.

Some interviewees observed the need for a more comprehensive picture of the industry's trends and needs and therefore the necessity to bring up the level of individual PACs' advice. Some colleges and institutes are already taking steps in that direction. A few require that PACs submit reports to the college's Board of Governors, thus allowing for the possibility of raising the level of analysis of industry needs and programs' respective responses. Others see the need for a higher-level structure. For example, Fanshawe College, ON, has established an Industry Advisory Group to develop a broader, regional, and global perspective on industries. The Southern Alberta Institute of Technology (SAIT) has a policy to create Industry Sector Advisory Committees "to provide an industry-wide perspective on the design and delivery of educational and training services which meet both current and emerging needs within a particular industry sector".¹²

To benefit maximally from community advice, some colleges and institutes have established PACs on college-wide issues. For example, the Collège communautaire du Nouveau-Brunswick has a college advisory committee on issues related to Indigenous education.

"There should be more collaboration between PACs, for the benefit of all – colleges and industry. In general, we tend to stay in our silos."

- Interview snapshot

IV.3. Colleges and institutes' support to PACs

All institutions support their PACs by acting as resources for their PACs in various ways. The vast majority of them report that they assist PACs' functioning by providing clerical, administrative, and logistics support. This includes but is not limited to providing a space, organizing meetings around members' schedules, preparing the agenda, and ensuring staff availability to take minutes and keep records. Institutions also offer financial support to PAC members by reimbursing travel costs. They provide feedback and/or quality review and facilitate special events when required. They open the doors to networking in academia and offer their members recognition for their work and involvement in the community. Last but not least, they incorporate outcomes from PAC meetings into college operational plans and strategic plans, as appropriate.

In addition, some institutions further support their PACs by offering an orientation session to new PAC members and some by providing PAC members with a manual or an orientation package. For example, Confederation College, ON, has developed a Program Advisory Committee Orientation Package¹³, which outlines the legislative requirements and policy statements and PAC's roles and responsibilities and provides an overview of the college's organizational structure and operations as well as the Ontario college system. PAC members in other colleges and institutes are sometimes provided with terms of reference where their roles and responsibilities are defined. Some colleges and institutes, such as Algonquin College, ON, and Centennial College, ON, organize recognition events for their PACs members.

¹²http://www.sait.ca/Documents/About%20SAIT/Administration/Policies%20and%20Procedures/AC-2-4-2_IndustrySectorAdvisoryCommitteesProcedure.pdf

¹³http://www.confederationcollege.ca/sites/default/files/uploads/department/program_advisory_committee_orientation_package-2012_2.pdf

Leading Practice Example

Conestoga College, ON, has created a continuous quality improvement project group - CCQI PAC Project Group, comprised of senior representatives of the academic schools. The group meets throughout the academic year to review and share PAC activities and practices, provides feedback and input with regards to resources, templates, and practices. There are templates for each of

the following: meeting agendas; meeting notes; program team reports (two per year); membership grid; member nominations; welcome packages; thank you letters. As well, there are guides for each of the following: file management; student participation guide; PAC Resource Guide (internal) - chairing a meeting tips and tools (new). Institutional practices include a shared workspace on SharePoint for repository of all information and an annual quality review of PAC practices.

IV.4. Key characteristics of a successful PAC

Although PACs have a number of specific characteristics, there is a general consensus from institutions about them. Colleges and institutes all stress the importance of active participation, both at meetings and in members' respective fields. Members should be engaged in the institution's mission and vision, have a strong interest in and understanding of PSE, and be distinctly supportive of students. Successful PAC members are key strategic industry partners, knowledgeable and influential. They have the ability and willingness to provide feedback, labour market intelligence, and to contribute ideas. Members should be able to ask insightful questions and challenge each other's thinking. They take an active role by participating in activities and/or special projects, becoming a guest lecturer, providing job-shadowing trips, and/or counselling graduates in their job searches. They are strong advocates for the program and the institution. They help establish funds for student awards, scholarships and/or bursaries. They are committed partners who promote training opportunities and create or facilitate field placements, co-ops, practicums, and further employment opportunities. They share some of their connections to high schools, other colleges and institutes, and universities. As representatives of their organization's viewpoint and/or their area of expertise, they always act in accordance with appropriate professional conduct both inside and outside of meetings and respect the confidentiality of meeting discussions. They also provide constructive and timely feedback.

A key characteristic of a highly successful PAC is its attitude and aptitude for visionary advice. While colleges are nimble in reacting to current labour market needs, they also take a longer-term view of preparing for future and emerging labour market needs. The development or revision of a college and institute program can be a lengthy process. Therefore, the vision, the perspectives and the evidence provided by PACs for a particular programme of study should be strategic, long-term, and long-lasting.

“A good program advisory committee asks for facts and evidence, requests to back up anecdotes with data.”
- Interview snapshot

The leadership of the PAC Chair and the college official responsible for the PAC (e.g., Dean of Academic Affairs) is critical to ensuring the PAC's success. Engaging PAC members and enabling them to question and, if necessary, challenge assumptions and practices, is a key success factor in PAC practice.

As a group, PACs should be diverse and provide a cross-representation of industry, with complete membership according to program and industry relevance. The diversity should also be expressed in terms of perspectives, gender, indigenous, ethnic minorities, etc. representation. The team has a well-defined mandate and clear objectives. Agenda items are action-oriented and allow for follow-ups. Agendas are engaging and create opportunities for a robust discussion of challenges, strengths, and opportunities, with an acknowledgement of the institution's strengths in curriculum development and delivery as well as a key understanding of the importance and contribution of the advisory feedback. Meetings are well attended, well facilitated, and well supported by leadership. They are regular, part of an ongoing dialogue with membership, and feature open and honest communication, especially with regards to

program matters and the institution's graduates. Alumni and student involvement is also key, helping to bring all parties to the table for generative discussions that lead to new ideas for program enhancements. Term-based membership also ensures that new people and perspectives are respectively being heard and utilized, while a focus on program growth, stability, and responsiveness to changing industry trends and needs ensures positive PAC continuity. An emphasis on results means students find placements and graduates find employment.

A successful PAC is deeply rooted in the community's needs and understands well the community's most significant issues. Indigenous education and indigenous students' success are important issues for many Canadian communities.

BOX 2. COLLEGE INDIGENOUS EDUCATION AND PACS

To reaffirm the importance of Indigenous education for Canada's people, society and economy, Colleges and Institutes Canada, in consultation with its members and partners in indigenous communities developed an Indigenous Education Protocol in 2014. To date, 49 CIG member institutions have signed the Protocol.

One of the seven foundational principles of the Indigenous Education Protocol is stated as such: "Ensure governance structures recognize and respect Indigenous people". Exemplary practices for implementing this principle include Indigenous representation in PACs.

Many colleges and institutes have specific policies for Indigenous learners and communities, aiming at increasing participation and success in higher

education by Indigenous people, and at strengthening relationships with Indigenous communities. These policies aim to ensure program relevancy to the priority needs and interests of Indigenous communities.

Indigenous education is a regular or ad hoc topic in many PACs discussions. Furthermore, some colleges and institutes invite Indigenous people to sit as PAC members (e.g., the Nursing Program PAC at Red River College, MB, has a representative from the Aboriginal Nursing Association of Manitoba). Other colleges and institutes, such as Collège communautaire du Nouveau-Brunswick, NB, and NorQuest College, AB, have established a specific PAC on Indigenous education, with horizontal, cross-sectional responsibilities.

IV.5. Key benefits of PACs for colleges and institutes, students, faculty, employers, and communities

Institutions perceive numerous benefits that PACs' ongoing efforts offer students, faculty, and the institution itself. This specific form of partnership with industry highlights an evidence of demand from employers and ensures curriculum currency and program relevancy in alignment with changes in community and labour market needs. It keeps delivery standards up-to-date and contributes to program growth. It inscribes itself within a more intricate network of connections, creating opportunities for new partnerships and ideas, strong student support, and a space for the promotion of the institution and its programs. This in turn enhances the institution's reputation in the eyes of students and the community alike. PACs provide students with work-integrated learning (WIL) opportunities, practicums, internships, co-ops, capstones, and field placements, and they connect graduates to employment. Their active involvement can result in concrete financial investments in the form of student scholarships, awards, and bursaries as well as donations of capital equipment in student learning. As a particularly knowledgeable and influential team, PACs are often at the center of innovation and they help attract new talents for teaching specialized courses. They also act as a bridge between academic and work organizations, closing the loop by providing feedback on graduates.

Successful PACs contribute to building a culture of positive connectedness between colleges and institutes and industry and communities. They also contribute to enhancing an outcomes-based organizational culture, which has multiple benefits for colleges and institutes, their staff, and their students.

An efficient PAC also has multiple benefits for employers, industry, and communities. Through PACs, employers and industry stay connected with the source of their future workforce and have the opportunity to influence and to contribute to its development. They can also keep abreast of new academic research and developments in their occupational fields. In addition, many PAC members from industry indicated that PACs are one of the rare opportunities, and for most, the only opportunity, to network with other industry representatives.

When asked about the future of PACs, all stakeholders – PAC members, employers, college officials and community representatives – indicated that PACs are not only essential in the current context, but their role will further increase in the future. The win-win approach and solutions PACs provide ensures their relevancy in the future.

BOX 3. THE SUCCESS STORY OF TWO PAC-ORIGINATED INITIATIVES

One of PACs' main contributions to colleges and institutes comes through their strong connections and awareness of the needs of the communities - local, industry and professional - they represent.

Several years ago, a new degree program in construction management was established at George Brown College, ON, as per the recommendation of a cluster program advisory committee. The committee's members, coming from different construction fields and companies, after an analysis of the changing needs of their industry, identified important gaps in leadership, management, and entrepreneurial skills and therefore the need for a new college program. The program was launched as a partnership between the college and the construction industry with the goal of preparing graduates to work effectively in all construction management settings. PAC members invested themselves heavily in the program's development process and its success. Now, the degree program in construction management is offered by several other colleges and institutes in Canada and has a national accreditation from the Canadian Institute of Quantity Surveyors and the Canadian Construction Association Gold Seal program. The 100% graduate placement rate speaks of itself. The program is in very high demand and some colleges and institutes, such as Red River College, MB, have had to restrict admission to the first year of the program to residents of Manitoba only.

The important health-related needs of Indigenous communities require deep knowledge and community-tailored innovative solutions. PACs' knowledge of these needs, reinforced by their Indigenous members' representation, can lead to important innovations. The Nursing PAC at Red River College, MB, was at the origin of the development of a virtual learning resource, Journey North: A Virtual Nursing Experience. In collaboration with Health Canada and eTV, Red River College established a virtual interactive tour of the nursing station located on Bloodvein First Nation in northern Manitoba, with 17 exploratory rooms and points, 10 of which are 360° panorama rooms. Supplemented by videos, photos, audio, and a number of medical scenarios, Journey North allows Nursing students the opportunity to explore and learn about northern community health nursing, as well as Indigenous cultures and traditions, and thus serves the needs of the community as well. This innovative approach has received very positive reviews across the province and nationally.

These success stories are examples of the positive role efficient PACs can play in their communities, and in the fulfillment of colleges and institutes' and their community and industry partners' missions.

Universities that were previously colleges

PACs are seen by interviewees and survey respondents as a cornerstone of colleges and institutes' identity, one of their most significant competitive advantages. Litwin (2012) observed that "the PAC is the historic and most consistent focal point of the relationship between colleges and institutes and the relevant employment group."

What happens to PACs when a public college or institute becomes a university? This is one of the questions that may help to understand the role PACs play in program and institutional success. A preliminary exploration of universities that were previously colleges and institutes'

approach to PACs indicates that these institutions retain their PACs and see them as a constructive means to increasing the relevancy of their academic programs and especially the applied learning ones, by validating their learning outcomes. For example, KPU, BC, has maintained its PACs. KPU has a PAC policy in place and the number of committees is included in KPU's metrics and strategic plan. PACs are seen as a way of maintaining the institution's relevancy and engagement with the community. The proportion of programs with active advisory committees is seen as a measure of community engagement. Box 4 presents the case of a college in transition to becoming a university, Sheridan College, ON, and its approach to PACs.

BOX 4. PACS AND INSTITUTIONS IN TRANSITION

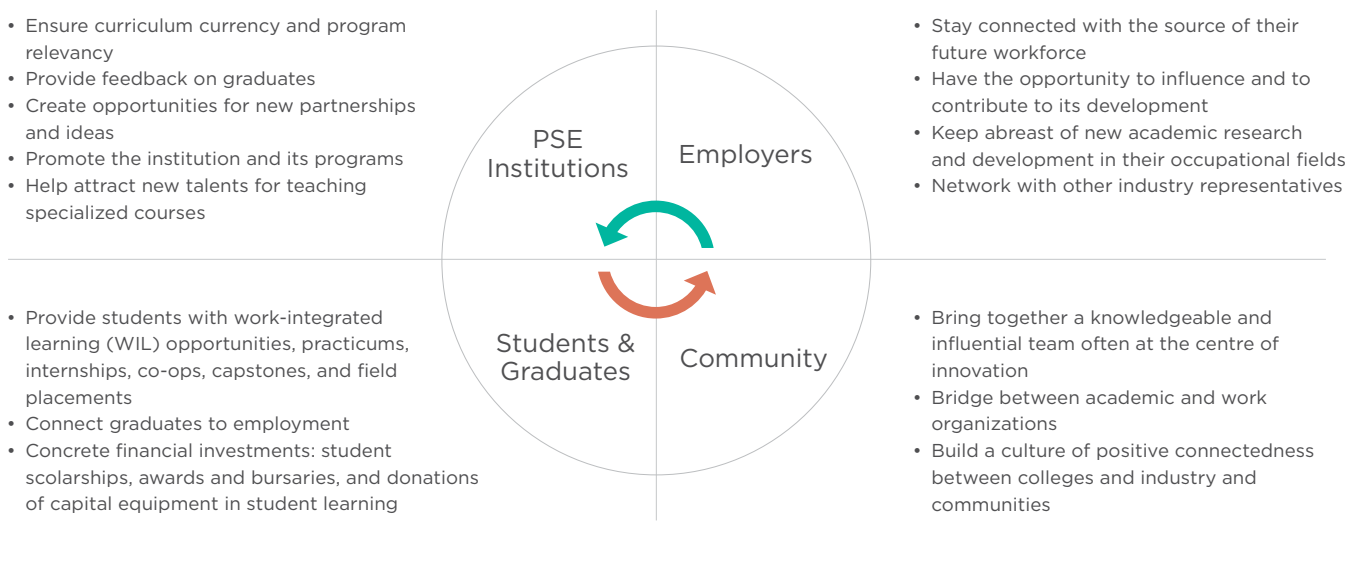
In recent years, some colleges and institutes have started a process to become universities. This is the case of Sheridan College, in Ontario, which announced in 2012 its intention to acquire university status by 2020. Sheridan's response is to rebrand PACs as Professional Advisory Councils, with some policy and practice updates. During its transition, Sheridan is establishing ad hoc Professional Advisory Councils to further inform the design and future development of programs. At present, the Board of Governors is ultimately responsible for decisions regarding program viability, while Senate is responsible for program quality.

Sheridan has issued a Standards and Practices for Professional Advisory Councils document that outlines the purpose, structure, and features of PACs. It is geared towards new PAC members, who are representatives from the public and private sector including employers, professional and trade organizations, social agencies, government agencies, and recent Sheridan graduates. Appended to this document are such tools as sample letters (e.g. 'Welcome New Member'; 'Chair Appointment';

'Welcome Alumni Member'; 'Retired member/End of Term', etc.), program report guidelines, a meeting checklist, and a sample PAC Self Review Form, among others. The document, shaped by a new context in which the college finds itself progressing on what it refers to as its "journey" to become Sheridan U – "Ontario's first undergraduate, applied teaching university", reminds the reader of the obligatory nature of PACs in Ontario colleges under Ontario Colleges of Applied Arts and Technology Act, 2002 and explains that the newly named Professional Advisory Councils offer Sheridan a unique strength in postsecondary education. Indeed, successful Professional Advisory Councils provide strategic advice and input in the program review process, helping the institution respond to changing academic, business and industry requirements; PACs help ensure that programs stay relevant to the needs within the community and anticipate future trends.

Source: (based on) Sheridan College. Standards and Practices for Professional Advisory Councils

FIGURE 2. SUMMARY OF PACS' KEY BENEFITS



IV.6. Key challenges and barriers to a successful PAC

Although the benefits of PACs are plentiful for institutions, students, faculty, employers, and communities alike, achieving success when the bar is high can occasionally prove difficult. Institutions can sometimes experience challenges in recruiting the right members, securing regular attendance, and ensuring membership turnover, especially in small jurisdictions and/or particularly small and specialized programs in a “niche” market area. One Ontario institution has to find creative ways to overcome regional complexities, as its programs are offered across the province - making province-wide representation on PACs a unique and interesting challenge. Another institution emphasizes that, because some organizations are primarily located in city centres, it is difficult to attract employers to local/rural community colleges and institutes outside of urban centres. Additionally, orientation is often needed to ensure members understand college and ministry practices and policies, a time-consuming requirement that PACs meeting twice a year find difficult to fulfill. To overcome PAC members’ concerns about time constraints, some colleges and institutes increasingly opt for a clustering of PACs; this also allows them to have a better access to higher-level industry representatives with more strategic, industry sector-wide perspectives. In addition, PAC clustering has the potential to initiate meaningful

interconnections between PAC members and create new opportunities, thus becoming a vehicle for innovation.

Institutions may also find it challenging to explain the financial barriers post-secondary education organizations face to implement certain industry representatives’ suggestions. While PACs bring forward innovative, creative and relevant ideas that would benefit the students and programs, some of those will not come to fruition because of budget limitations and this could prove an obstacle to keep some committees’ members motivated and engaged. Alternatively, other institutions face another challenge: while all committee members do share common goals, it is not improbable that certain PAC members’ individual “hidden” agendas could create conflicts and put off the overarching process of program improvement.

Institutions must also overcome their own logistical barriers. Making sure time and resources are available to organize regular PAC meetings and ensuring meetings are properly documented and recorded for future reference are among the frequently cited difficulties. A “checking the box” attitude from PAC members or college in-charge personnel can be particularly damaging: fortunately, this is a rather rare phenomenon.

V. Summary of key findings and major knowledge gaps

This study aimed to provide an introductory description of the current state of PACs in Canadian colleges and institutes and thus to narrow some of the existing knowledge gaps.

The table below contains:

1. a summary of some of the most important findings about the current state of PACs in Canadian colleges and institutes
2. a list of key knowledge gaps with regards to PACs.

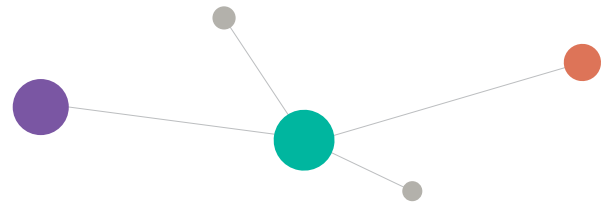


TABLE 4. SUMMARY OF KEY FINDINGS ON THE CURRENT STATE OF PACS AND LIST OF KNOWLEDGE GAPS

1. CURRENT STATE OF PACs

PURPOSE AND VALUE OF PACs

- PACs are the most structured and consistent expression of the multiple relationships that exist between colleges and institutes and local employers and industries.
- PACs are considered a cornerstone of Canadian colleges and institutes' philosophy and delivery of educational services to their communities. They provide a bridge between the needs of the students and those of the industry and of employers to better meet the community's economic and social aspirations.
- The students and their success are commonly seen as the ultimate "raison d'être" of PACs.
- PACs exist in every province and territory with a college system; however, there is no unique Canadian college PAC model.
- There are a multiplicity of approaches in various jurisdictions and often even among institutions within the same jurisdiction; however, most of the colleges and institutes share similar terminology and philosophy for their PACs.
- In addition to advising on program development and reviews, PACs are instrumental in many aspects of work-integrated learning (they assist with student internships and graduate placement opportunities, act as key speakers, etc.)
- There is unanimity regarding the positive value of PACs and the necessity to continue and even expand their activities.
- In general, there are no formal processes in place to evaluate the impact or the efficiency of PACs; the current thinking about PACs' efficiency is very much process-oriented (e.g., how many meetings PACs had during an academic year, or whether they have produced/distributed minutes from these meetings)
- While many colleges and institutes see the necessity to assess their PACs' efficiency with more outcomes-based measures, they do not have appropriate frameworks in place.
- For industry representatives and employers, PAC membership is a way to give back to the community and/or the institution; it is also an opportunity to network with other industry representatives.

STRUCTURE AND FUNCTIONING OF PACs

- Typical PAC membership includes: employers, graduates, business and industry leaders, representatives from professional and accrediting bodies, community;
 - they are recognized for their reputable knowledge and competence in their occupational field;
 - they act as volunteers and should be free of any conflict of interest;
 - they act as ambassadors, both for the college and the program they are affiliated with and bring community and industry perspectives and feedback to ensure programs are relevant, competitive, and forward-looking.
- PAC meetings in person (on average twice a year) are the main way of functioning of PACs; some PACs try to innovate with online meetings.
- The needs of Indigenous learners and communities are discussed at PACs where the college has close links to Indigenous communities.

USE OF PACs

- The vast majority of colleges and institutes try to make the best possible use of their PACs and PAC members feel their contribution is valued.
- Colleges and institutes strive to have a PAC for most of their technical/professional programs. Mobility of people brings mobility of ideas: many PACs have been initiated because of “nomad” college faculty and leaders.
- Among the key challenges and barriers to PAC’s efficiency: attracting the right members due to time commitment; overcoming potential “hidden agendas”; logistical burden on colleges and institutes; “checking the box” attitude.
- Clustering of PACs as a means to overcoming time constraints and to a better access to higher-level industry representatives with more strategic, industry sector-wide perspectives.
- Universities that were previously colleges keep their PACs as an essential element of their heritage.

STRATEGIC FOCUS OF PACs

- Enhancing the role and the value of PACs and their potential for forward-thinking and more strategic advice is seen as imperative for responding to current realities.
 - The lack of a longer-term vision of industry and of learning needs and priorities is a huge obstacle to effective college programs and inefficient PACs can contribute to it.
- Many colleges and institutes see the need of setting a common, national vision for PACs and their role and outcomes. Many of the interviewees identified CICan as having an essential involvement in such an undertaking.
- To overcome program or discipline-defined borders, some colleges and institutes create PACs for college-wide or education-wide issues (e.g., a specific PAC on indigenous education, with horizontal, cross-sectional responsibilities).
- PACs are often seen as a real or potential incubator for innovation because of their particularly knowledgeable and influential teams.
- PACs are also seen, in some colleges and institutes, as important players in applied research developments.

2. KEY KNOWLEDGE GAPS

- Lack of country-wide comprehensive and comparative studies of PACs: their purpose, legislative base, structure, operations, evolution, responsiveness to changing context, and impact on colleges and institutes, labour market and communities
- Understanding the role mandatory legislative provisions play in PACs' organization and efficiency
- Comprehending the role of college, industry and community leadership in PACs' mission and impact
- Frameworks for assessing PACs' value and impact and for deepening the understanding of success factors and barriers to efficient PACs
- Understanding the concrete role PACs play in skills development and in work-integrated learning
- Understanding the role PACs play in students' success and graduates' educational and economic outcomes
- Comprehending the role and the mechanisms used by PACs in generating innovation, as well as potential linkages between PACs and applied research and applied learning developments in colleges and institutes
- Understanding PACs' role in supporting colleges and institutes to adapt to a new economic and political context; their own capacity to adapt to and to generate new opportunities in this context
- Mapping the place of PACs in a more comprehensive picture of the academic-industry relationships
- Understanding the impact of PACs on college organizational culture
- Foresight studies for the future of PACs
- Leading practices collection, analysis, and dissemination
- Tools to support PACs' mission achievement and efficiency, etc.

BOX 5. THE DISTINCTIVE APPROACHES TO PACS OF TWO OF QUEBEC'S ÉCOLES NATIONALES

The École nationale d'aérotechnique, affiliated with the Cégep Édouard-Montpetit, is one of Quebec's five national schools and the sole provider of aeronautics training in Quebec, setting its PAC in a unique position. For one thing, it makes recruiting members a much easier process. The School, which offers three programs, has decided to create a single 20-25-person program advisory committee the scope of which covers all three programs. This aims to prevent PAC members from being overloaded with demands and meetings. The first 45 minutes of PAC meetings are allocated to networking, during which industry representatives have the opportunity to network among themselves as well as with representatives from the School, discussing such things as student placements and co-ops. The meeting itself generally has two components: first, representatives from the School (who include faculty, study directors, staff responsible for employment and continuous education, etc.) present new products, pedagogical techniques, and/or program modifications launched or established; then, in a roundtable, a dozen industry representatives (spanning multiple sectors, from small and medium-sized enterprises to large corporations) provide the School with feedback on School's programs, graduates, and training. Other voting members include representatives from employment placement agencies and government representatives. Indeed, two of the three programs offered by the School are required

to meet Transport Canada standards. While the PAC does not conduct formal evaluations of its activities, it did form a sub-committee on self-evaluation and is looking into the potential use of quality management software to facilitate the organization of meetings (e.g. organizing the meeting agenda and migrating more easily to an action plan).

The Institut maritime du Québec, affiliated with the Cégep de Rimouski, is one of Quebec's five national schools. As such, it has adopted a unique college-industry relationship model in the 1980's, which continues to profoundly guide its operations. Unlike most PACs, which function at the program-level, the Institute's conseil consultatif (advisory committee) provides higher-level input into the Institute's strategic plan. Thirty to thirty-five industry, government, employers and PSE institutions' representatives are called upon at least twice a year to express their insights with regards to future and new developments in the sector, as well as recommendations and solutions for existing problems; they also provide guidance with respect to continuing education and participate actively in assisting the Institute in fulfilling its mission, particularly its research mission. In return, committee's members have the unique opportunity to have their voices heard, to network with each other, and to hear directly from students, who are invited to share their experience with the committee.

VI. Key insights and policy implications

This section highlights some insights from the study of PACs with potentially important policy implications.

- The existence of legislative or policy requirements for PACs may have an influence on PACs' efficiency and impact. Providing structure and clarity of expectations seems to enhance PACs' performance (the case of Ontario colleges and institutes, which operate in a relatively consistent manner and under clear binding policy requirements, appears to support such a hypothesis).
 - The existence of national and international industry standards and federal regulations seems to play an important role in PACs' creation and functioning. For example, federal policy requirements for certain occupations have induced the establishment of PAC structures in jurisdictions where PACs were rare or different in nature (for instance, in Quebec's *Écoles nationales*).
 - A rapidly changing context as well as evolving definition and scope of the concept of *community* impact the scope and nature of colleges and institutes' activities and create an urge to redefine the scope of their PACs as well.
 - Context changes (e.g., blurring of borders between academic disciplines and between professional areas, internationalization of education, increased mobility of knowledge and people – students, learners, and faculty – and therefore industry knowledge and practice extended beyond local and traditional borders) make colleges and institutes feel pressured to extend the scope and the sources of their information and knowledge beyond local and regional borders and to connect to the needs of a larger pool of employers and future industry developers.
 - Labour market information (LMI) is one of the key contributions of PACs to colleges and institutes' program development.
 - To meet their needs to access industry sector-wide knowledge and broader regional, national, and even international labour market information, critical to the future orientation of their programs, colleges and institutes (through different means, including PACs) must connect to networks beyond their local communities.
- 
- Therefore, the idea of a “next, higher level” structure, such as industry-wide councils, for sector-wide knowledge and conversations, emerges and starts being reflected in colleges and institutes' strategic plans and policies.
 - Governments have an important support role to play in helping colleges and institutes access LMI and achieving these connections.
 - Potential considerations may be given to:
 - better uses of existing sector councils' input to leverage sectorial intelligence;
 - creating national joint education-industry sector-wide networks.
 - As colleges and institutes look to rethink and actualize their PACs to better respond to faster changing labour market and environment, they lack analytical frameworks and models to initiate such processes.
 - As innovation leads governments' priorities agenda and colleges and institutes get more and more involved in applied research and innovation, the role of PACs in supporting these activities should be better understood in order to further enhance their contribution.
 - Associations like Colleges and Institutes Canada (which already offers existing networks and plays an essential role in knowledge development and dissemination about PSE issues, thereby enabling further thinking and developments), need better government support and encouragement to intensify their role in:
 - knowledge development and the collection, analysis, synthesis, and dissemination of leading practices;
 - developing various supporting instruments to enable appropriate college-industry connections;
 - setting or participating in strategic education-industry conversations and networks in joint efforts to enable colleges and institutes to achieve their mission and economies and communities to prosper.

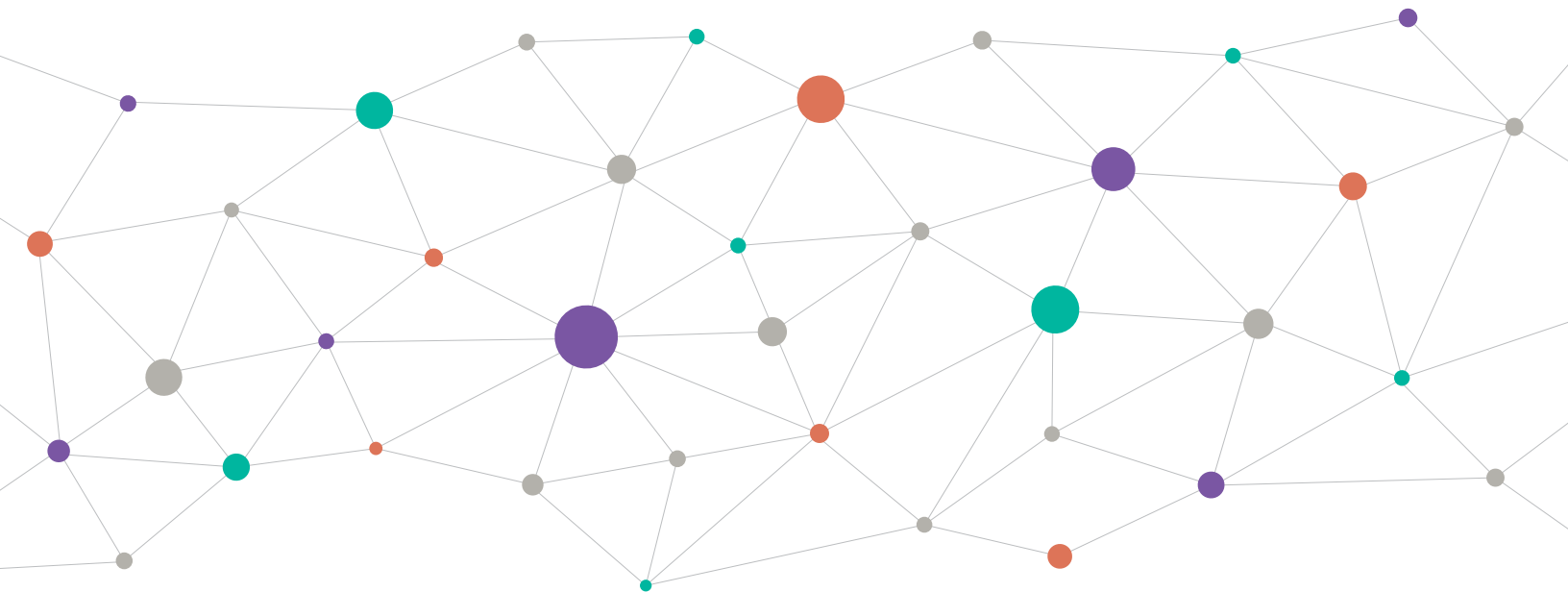
VII. Conclusion

This preliminary, stocktaking study of colleges and institutes' PACs in Canada aimed to narrow the significant knowledge gaps with regards to this important form of college-employer connection in Canada. Information gathered through a survey questionnaire, semi-structured interviews and literature and documentation reviews allowed for some first-hand findings and insights. Most importantly, this study raised some significant questions about the future of PACs and about potential policy implications.

However, further investigation efforts are needed to uncover the many aspects of PACs' role in developing advanced skills and in building labour market readiness for future college graduates. Policy makers will also be

encouraged to further explore the competitive advantages provided by PACs and their potential future contributions to the PSE system and to the economy, by modeling current and desired PAC experiences and by designing and exploring strategic scenarios.

In the meantime, it is important to meet colleges and institutes' needs for PAC-related evidence and the collection and dissemination of leading practices, to increase institutions' benefits from what has come to be the most consistent and best-structured approach to college-employer connections in Canadian PSE systems.



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CICan Member Colleges and Institutes in Canada

Yukon

- Yukon College

Northwest Territories

- Aurora College
- Collège Nordique Francophone*

Nunavut

- Nunavut Arctic College

British Columbia

- British Columbia Institute of Technology (BCIT)
- Camosun College
- Capilano University
- Collège Éducacentre*
- College of New Caledonia
- College of the Rockies
- Douglas College
- Emily Carr University of Art + Design
- Justice Institute of British Columbia
- Kwantlen Polytechnic University
- Langara College
- Native Education College**
- Nicola Valley Institute of Technology (NVIT) **
- North Island College
- Northern Lights College
- Northwest Community College
- Okanagan College
- Selkirk College
- Thompson Rivers University
- University of the Fraser Valley
- Vancouver Community College
- Vancouver Island University (VIU)

Alberta

- Alberta College of Art + Design
- Bow Valley College
- Grande Prairie Regional College (GPRC)
- Keyano College
- Lakeland College
- Lethbridge College
- Medicine Hat College
- NorQuest College
- Northern Alberta Institute of Technology (NAIT)
- Northern Lakes College
- Olds College
- Portage College
- Red Deer College
- SAIT Polytechnic: Southern Alberta Institute of Technology

Saskatchewan

- Carlton Trail College
- Collège Mathieu*
- Cumberland College
- Dumont Technical Institute**
- Great Plains College
- North West College
- Northlands College
- Parkland College
- Saskatchewan Indian Institute of Technologies**
- Saskatchewan Polytechnic
- Southeast College

Manitoba

- Assiniboine Community College
- École technique et professionnelle, Université de Saint-Boniface*
- Red River College
- University College of the North
- Manitoba Institute of Trades and Technology

Ontario

- Algonquin College
- Cambrian College
- Canadore College
- Centennial College
- Collège Boréal*
- Conestoga College Institute of Technology and Advanced Learning
- Confederation College
- Durham College
- Fanshawe College
- First Nations Technical Institute**
- Fleming College
- George Brown College
- Georgian College
- Humber College Institute of Technology & Advanced Learning
- Kenjgwin Teg Educational Institute (or KTEI)**
- La Cité*
- Lambton College
- Loyalist College
- The Michener Institute of Education at UHN
- Mohawk College
- Niagara College
- Northern College
- Sault College
- Seneca College
- Sheridan College
- St. Clair College
- St. Lawrence College

Quebec

- Cégep André-Laurendeau*
- Cégep de Chicoutimi*
- Cégep de Jonquière*
- Cégep de l'Abitibi-Témiscamingue*
- Cégep de la Gaspésie et des Îles*
- Cégep de La Pocatière*
- Cégep de Sainte-Foy*
- Cégep de Saint-Félicien*
- Cégep de Saint-Jérôme*
- Cégep de Saint-Laurent*
- Cégep de Sept-Îles*
- Cégep de Sherbrooke*
- Cégep de Trois-Rivières*
- Cégep de Victoriaville*
- Cégep Édouard-Montpetit*
- Cégep Garneau*
- Cégep Limoilou*
- Cégep Marie-Victorin*
- Cégep régional de Lanaudière*
- Cégep Saint-Jean-sur-Richelieu*
- Champlain Regional College
- Collège André Grasset*
- Collège de Maisonneuve *
- Collège LaSalle*
- Collège Lionel-Groulx*
- Collège Montmorency*
- Collège Shawinigan*
- Cégep Heritage College
- Cégep de Rimouski*
- Institut de tourisme et d'hôtellerie du Québec*
- John Abbott College
- TAV College*
- Vanier College

Newfoundland and Labrador

- Centre for Nursing Studies
- College of the North Atlantic
- Fisheries and Marine Institute of Memorial University of Newfoundland

New Brunswick

- Collège communautaire du Nouveau-Brunswick (CCNB)*
- New Brunswick College of Craft and Design
- New Brunswick Community College (NBCC)

Prince Edward Island

- Collège de l'île*
- Holland College

Nova Scotia

- Université Sainte-Anne*
- Dalhousie Agricultural Campus, Dalhousie University
- Nova Scotia Community College

Associates

- Association des collèges privés du Québec*
- Association québécoise de pédagogie collégiale*
- Atlantic Provinces Community College Consortium (APCCC)
- BC Colleges (BCC)
- Canadian Association of Diploma in Agriculture Programs (CADAP)
- Canadian Association of College and University Student Services (CACUSS)
- Colleges Ontario
- Fédération des cégeps*
- Forum for International Trade Training (FITT)

* Francophone

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