



True North in
Canadian public policy

PERFORMANCE ANXIETY PART II: How to ensure post-secondary institutions deliver on the expectations of students, parents, employers and governments

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Canadian public policy



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Table of Contents

Executive Summary	4
Recommendations: Ontario	5
Recommendations: Canada	6
Sommaire	7
Recommandations pour l'Ontario.....	8
Recommandations pour le Canada	9
Introduction	10
Toward greater accountability.....	11
The Quality of Higher Education: Government Oversight	13
The perils of public rankings	15
Measuring Higher Education Performance in Canada.....	17
Ontario: A Case Study	17
Self-Accountability and Performance Evaluation: Universities.....	17
Self-Accountability and Performance Evaluation: Colleges.....	19
Independent, Non-Government Measures of Performance: Universities.....	20
Independent, Non-Government Measures of Performance: Colleges.....	22
Ontario Government Measures of Higher Education Performance	24
Ontario Government Key Performance Indicators.....	27
Summarizing Performance Measures in Ontario	28
Recommendations: Ontario	31
Recommendations: Canada	32
Conclusion	35
References.....	37
Further Reading	40
Endnotes	42
About the Authors.....	44

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Executive Summary

In the Macdonald-Laurier Institute's first report in this series on Canada's post-secondary institutions, the authors argue that Canada's post-secondary system has formidable strengths and significant challenges, the greatest of which is connecting established education and training facilities to the emerging requirements of a technology-enabled, globally exposed national economy.

In this environment, everyone, from students and parents to employers or graduates to university administrators and government officials, needs a better way to evaluate the success or failure of post-secondary institutions to meet these challenges.

The establishment and maintenance of performance standards do not always rest easily within the post-secondary culture, particularly at universities that continue to guard jealously their autonomy and independence. While there is support for publicizing the good news – the high average income of graduates is a favourite (even though averages are notoriously unreliable as a guide for individual outcomes) – there is much less enthusiasm for publicly posting high drop-out rates, low post-graduation employment and poor salary outcomes in certain fields, let alone the comparative effectiveness of institutions.

“ Provincially mandated reports fail to clarify the difference between accountability for money spent and indicators of high standards.

As well, governments must avoid relying on metrics that might be easily manipulated to produce additional income for the institution. Setting enrolment targets – the “bums in chairs” approach that has caused considerable difficulty across the country – encourages, if not requires, low-enrolment institutions to take in weaker students who are unlikely to succeed. Establishing graduation targets encourages universities to focus on “retention,” which in some institutions has become a code word for lowering academic standards.

Aside from the surveys done by major media outlets such as *Maclean's* in Canada and *Times Higher Education* on a global basis, there is little information available to the public about whether post-secondary institutions are delivering on their promises.

Of course, there is currently a wide array of measures for evaluating Canadian institutions. Professional colleges accredit graduates in numerous fields, tenure processes ensure professors meet rigorous standards, financial accountability and accountability to boards of directors are constant requirements, and a variety of agencies measure outcomes such as graduation rates, admissions standards, and employment outcomes. Independent advisory committees review and make recommendations on college curriculums. The development of performance measures in jurisdictions across Canada is accelerating.

Even so, we are not seeing the big picture. Canada boasted more than 130 colleges and polytechnics enrolling over 700,000 full time and 250,000 part time students as of 2016, but there is no national or even provincial performance ranking available to the public.

This report uses the case of Ontario as an example – and education issues in Ontario are certainly timely. Since Premier Ford and his government took office in June 2018, the previous Liberal government’s promised new campuses in Markham, Milton, and Brampton have been cancelled and plans for a French university in Toronto and a new law school at Ryerson University abandoned. These moves have been controversial, but with budget pressures mounting, it is necessary to focus on value for money and what priorities best position Canada in the modern economy, rather than simply expanding university spaces.

In Ontario, the provincial government requires that institutions report on the time required for students to graduate, what percentage of students obtain employment after graduation, the proportion of students who default on student loans, and the extent to which students are satisfied with their education. A portion of annual government funding has been associated with some of these performance measures.

However, government-mandated performance indicators, particularly in Ontario, do not currently provide the evidence needed to evaluate and therefore improve the system. As well, provincially mandated reports fail to clarify the difference between accountability for money spent and indicators of high standards. This study offers recommendations for both Ontario and the whole nation.

RECOMMENDATIONS: ONTARIO

1. Remove the link between key performance indicators and funding. They are counter-productive in terms of resource allocation and contribute little to encouraging higher quality institutional outcomes.
2. Make more effective use of the data that is (and, perhaps, will be) collected by strengthening the linkage between the metrics and learning and career outcomes, the impact of research and outreach efforts, and institutional financial performance.
3. Do not collect the data for the metrics annually. Three-year reporting would make more sense and save millions of dollars.
4. Champion fundamental learning and research goals and enshrine them as the centrepiece of strategic mandate agreements (SMAs).
5. Place considerably more reliance on both the certification process by professional organizations that appraise institutional programs and the role of college program advisory committees.
6. Keep the Higher Education Quality Council of Ontario (HEQCO) as “arms-length” as possible and give it the mandate to approve programs or changes in programs where there is no external certification. This would leave the important task of program review to the Ontario University Council on Quality Assessment. HEQCO should, however, develop a system-wide test that measures the breadth and depth of achievement by students with respect to analytical skills, communication, critical thinking, and diversity of com-

prehension related to broad social issues. HEQCO's recently released study, *Measuring Critical-thinking Skills of Postsecondary Students* (Finnie et al. 2018), is a step in this direction and should be encouraged.

RECOMMENDATIONS: CANADA

1. Fix the fragmentation of information and analysis. The provincial, federal, and territorial governments should produce a single, standardized evaluation system for universities.
2. Determine an appropriate evaluation metric to define the ability of individual institutions to add value to the students enrolled in the university, college, or institute, and account for the needs of disadvantaged students.
3. Monitor student career outcomes nationally, regardless of the level of post-secondary education and the student's ability to complete a specific program. This information should be publicly available and interactive.
4. Develop metrics to determine the value of research and teaching on commercialization and economic development. The current system focuses primarily on inputs (like research grants) and proxies for outputs (such as patents or number of people trained). Society needs to know who is succeeding at converting research funding into businesses and jobs.
5. Develop a similar measure for the social, cultural, and political impact of social science and humanities research.
6. Create evaluation systems that recognize the sharp differentiation in purpose, mandate, and environment between the country's various universities, polytechnics, and colleges.

Canadian taxpayers, students, and their parents pay billions of dollars each year to support the country's colleges, universities, and polytechnics. They deserve to have accurate, timely information about whether that investment is paying off.

Sommaire

Dans cette première étude d'une série de l'Institut Macdonald-Laurier sur les établissements postsecondaires au Canada, les auteurs font valoir que le système a des capacités considérables, mais qu'il est également confronté à des défis de taille, le plus grand étant l'harmonisation des infrastructures d'enseignement existantes aux nouvelles exigences d'une économie nationale fondée sur la technologie et exposée à la concurrence mondiale.

Dans de telles conditions, tous – étudiants et parents, employeurs et diplômés, administrateurs d'université et fonctionnaires – doivent trouver un meilleur moyen d'évaluer le succès ou l'échec des établissements postsecondaire pour relever ces défis.

L'établissement et le maintien de normes de performance suscitent des conflits de culture au sein des milieux postsecondaires, en particulier dans les universités qui continuent de préserver jalousement leur autonomie et leur indépendance. On se réjouit toujours de la publication de bonnes nouvelles, en l'occurrence de la parution de chiffres qui démontrent que le revenu moyen des diplômés est élevé (même si les moyennes sont notablement peu fiables pour représenter les résultats individuels). Toutefois, l'enthousiasme est beaucoup moins grand pour la diffusion publique des taux élevés d'abandon, des bas taux d'emploi après l'obtention du diplôme et des mauvais résultats salariaux dans certains domaines, sans parler de l'efficacité comparée des institutions.

“ De plus, les rapports mandatés à l'échelle provinciale ne font pas de distinction entre l'optimisation des ressources et les indicateurs de normes élevées.

De même, les gouvernements doivent éviter de s'appuyer sur des mesures susceptibles d'être utilisées de façon abusive pour financer les revenus supplémentaires du système. Fixer des objectifs d'inscription – approche qui consiste à « remplir les salles de classe », une source de difficultés considérables dans l'ensemble du pays – incite, voire oblige, les institutions à bas taux d'inscription à accueillir des étudiants plus faibles ayant peu de chances de réussir. Établir des cibles orientées sur les objectifs de diplomation incite les universités à mettre l'accent sur la « rétention », terme qui est devenu le mot de code utilisé dans certaines institutions pour abaisser les normes académiques.

Outre les sondages menés par les principaux médias, tels que ceux de *Maclean's* au Canada et de *Times Higher Education* à l'échelle mondiale, le public dispose de peu d'informations pour décider si les établissements d'enseignement postsecondaire tiennent ou non leurs promesses.

Bien entendu, il existe actuellement un large éventail de mesures permettant d'évaluer les institutions canadiennes : les collèges professionnels accréditent les diplômés dans de nombreux domaines; le processus d'affectation garantit des normes rigoureuses pour le corps professoral; l'imputabilité financière et la reddition de comptes demeurent des exigences auxquelles les conseils d'administration doivent se plier. En outre, divers organismes mesurent les taux de diplomation, les normes d'ad-

mission et les résultats sur le plan de l'emploi. Des comités consultatifs indépendants examinent et formulent des recommandations sur les programmes d'étude des collèges. L'élaboration de mesures de performance prend de l'ampleur dans toutes les administrations au Canada.

Malgré cela, on ne dispose d'aucun portrait global de la situation. En 2016, le Canada comptait plus de 130 collèges et écoles polytechniques qui accueillait plus de 700 000 étudiants à plein temps et plus de 250 000 étudiants à temps partiel. Toutefois, aucun classement de performance national ou provincial n'a été publié.

Cette étude illustre le cas de l'Ontario – les problèmes d'éducation en Ontario étant certainement d'actualité. Le Premier ministre Ford et son gouvernement, après leur entrée en fonction en juin 2018, ont mis de côté les projets de nouveaux campus à Markham, Milton et Brampton du précédent gouvernement libéral et abandonné les projets de création d'une université française à Toronto et d'une nouvelle école de droit à l'Université Ryerson. Ces décisions ont fait l'objet de controverses, mais compte tenu des pressions budgétaires croissantes, il fallait mettre l'accent sur l'optimisation des ressources et les priorités qui positionnent le mieux le Canada dans l'économie moderne, plutôt que de simplement agrandir les espaces universitaires.

En Ontario, le gouvernement provincial exige que les établissements déclarent les délais de diplomation, les taux d'emploi après l'obtention du diplôme, la proportion d'étudiants qui ne remboursent pas leurs prêts d'études et la mesure dans laquelle les étudiants sont satisfaits de leur formation. Une partie du financement annuel gouvernemental est associée à certaines de ces mesures de performance. Cependant, les indicateurs de rendement prescrits par le gouvernement, en particulier en Ontario, ne fournissent pas actuellement les données nécessaires pour évaluer et donc améliorer le système. De plus, les rapports mandatés à l'échelle provinciale ne font pas de distinction entre l'optimisation des ressources et les indicateurs de normes élevées. La présente étude offre des recommandations à cet égard pour l'Ontario et l'ensemble du pays.

RECOMMANDATIONS POUR L'ONTARIO

1. Rompre le lien entre les indicateurs de performance clés et le financement. Ils sont contreproductifs sur le plan de l'allocation des ressources et contribuent peu à de meilleurs résultats institutionnels sur le plan de la qualité.
2. Utiliser plus efficacement les données qui sont (et, peut-être, seront) recueillies en renforçant les liens entre les mesures et les résultats d'apprentissage et de carrière, l'impact de la recherche et des activités de vulgarisation et le rendement financier des institutions.
3. Ne pas recueillir de données annuellement. Un rapport aux trois ans aurait plus de sens et permettrait d'économiser des millions de dollars.
4. Défendre les objectifs d'apprentissage et de recherche fondamentaux et en faire la pierre d'assise des ententes de mandat stratégique.
5. Accorder beaucoup plus d'importance au processus de certification des organisations professionnelles qui évaluent les programmes institutionnels ainsi qu'au rôle des comités consultatifs des programmes collégiaux.
6. Maintenir l'indépendance du Conseil de la qualité de l'enseignement supérieur de l'Ontario (COQES) « autant que possible » et lui donner le mandat d'approuver les programmes ou les modifications apportées aux programmes qui ne sont pas visés par un proces-

sus de certification externe. Cela laisserait à l'organisme dirigeant pour l'assurance de la qualité académique en Ontario l'importante tâche d'examiner les programmes. Le COQES devrait toutefois élaborer un test à l'échelle du système pour mesurer l'étendue et la profondeur des résultats obtenus par les étudiants sur le plan des compétences analytiques, de la communication, de la pensée critique et de la diversité de compréhension des grands problèmes de société.

RECOMMANDATIONS POUR LE CANADA

1. Régler le problème de fragmentation en matière d'information et d'analyse. Les gouvernements provinciaux, fédéraux et territoriaux devraient créer un système d'évaluation unique et normalisé pour les universités.
2. Déterminer une mesure d'évaluation appropriée pour définir la capacité de chaque établissement à rehausser les compétences des étudiants inscrits à l'université, au collège ou dans un institut et à tenir compte des besoins des étudiants provenant de milieux défavorisés.
3. Surveiller les résultats de carrière des étudiants à l'échelle nationale, peu importe le niveau d'études postsecondaires et la capacité de l'étudiant à compléter un programme particulier. Cette information devrait être accessible au public et offerte de manière interactive.
4. Élaborer des mesures permettant de déterminer la valeur de la recherche et de l'enseignement sur la commercialisation et le développement économique. Le système actuel est principalement axé sur les intrants (subventions de recherche) et les données de substitution en matière de résultats (brevets ou nombre de personnes formées). La société a besoin de savoir qui a réussi à exploiter le financement de la recherche pour créer des entreprises et des emplois.
5. Élaborer une mesure similaire pour l'impact social, culturel et politique de la recherche en sciences sociales et humaines.
6. Mettre au point des systèmes d'évaluation qui reconnaissent clairement les différences entre les diverses universités, écoles polytechniques et collèges du pays sur le plan des objectifs, du mandat et de l'environnement.

Les contribuables canadiens, les étudiants et leurs parents versent des milliards de dollars chaque année pour financer les collèges, les universités et les écoles polytechniques du pays. Ils méritent de disposer d'informations précises et opportunes sur le rendement de leur investissement.

Introduction

Colleges, polytechnics, and universities receive billions of dollars in annual contributions from federal, provincial, and territorial governments. For decades, they have received this funding while being relatively free from external evaluation and assessment. But in the past 20 years or so, most jurisdictions in Canada have established a variety of reporting requirements that are supposed to measure the quality of higher education. As we shall outline in this paper, they have failed and continue to fail to fully measure educational quality and outcomes or create a complete picture of post-secondary institution performance.

“ Parents want to see a clear path to stable employment. And institutions need to know if their programs and services are meeting the needs of students, employers, and the Canadian workforce.

Circumstances have changed substantially over the years. A declining economy in selected sectors and regions slowed employment growth. Graduates from some institutions and some programs have struggled to find rewarding and highly paid careers. Parents, graduates, and governments have complained about the perceived mismatch between academic programs and the workplace.

At the same time, the emergence of the high-technology economy and the dislocation of an as-yet-unknown number of workers through digital and industrial innovations have raised major questions about the future of work, the human resource requirements of a 21st century innovation economy, and

the need for updating educational and training systems. Universities, colleges, and polytechnics are innovating in response to changing realities. Students are voting with their feet – and their tuition dollars – by shifting from general education to practical and applied programs.

As government funding for post-secondary institutions has expanded and as the number of students and graduates continues to rise, the demand for greater accountability has escalated. Governments struggle to allocate funds between competing post-secondary systems and institutions, and other high priority funding areas such as health care. They want improved outcomes from their investments. Parents want to see a clear path to stable employment. And institutions need to know if their programs and services are meeting the needs of students, employers, and the Canadian workforce.

Uncertainty about what is happening in the broader economy and where the jobs of the future are to be found complicates the situation, as evaluative procedures are, by definition, based on historical circumstances. And as radio advertisements for the latest investment vehicles proclaim, “Past results are no guarantee of future performance.”

The government of Canada has announced its new innovation, skills, and training initiative, “Future-Skills,” designed to support the government’s pursuit of “inclusive economic growth.” It is becoming

increasingly important that a proper, systematic, quality assurance and evaluation procedure be put in place. At the same time, the Auditor General has released a scathing critique of the government's expensive workplace training initiative for Indigenous Canadians, arguing that hundreds of millions of dollars have been spent with little or no evaluation of effectiveness or even basic outcomes.

As discussed in the first Macdonald-Laurier Institute report in this two-part series on Canada's post-secondary institutions (Coates and Auld 2018), the Canadian post-secondary system has formidable strengths and significant challenges. The greatest of these challenges is connecting established education and training facilities to the emerging requirements of a technology-enabled, globally exposed, national economy.

In the current environment, quality assurance is a crucial tool for institutional management, the governance of provincial and territorial post-secondary education systems, and personal, family, and employer decisions about the prospects for graduates.

The establishment and maintenance of performance standards does not always rest easily within the post-secondary culture, particularly at universities that continue to guard jealously their autonomy and independence. That the contemporary system calls for greater transparency in the sharing of institutional results puts added pressure on the institutions. While there is support for publicizing the good news – the high average incomes of graduates are a favourite (even though averages are notoriously unreliable as a guide for individual outcomes) – there is much less enthusiasm for publicly posting drop-out rates, post-graduation employment and salary outcomes in certain fields (unless they are highly positive), let alone the comparative effectiveness of institutions.

Quality assurance procedures already exist in some institutions and in some parts of Canada, and the development and imposition of performance measures are rapidly becoming more of a Canadian reality. It remains to be seen how effective these are in managing the country's diverse post-secondary institutions. It is increasingly clear, however, that governments and the public expect greater accountability for the money – and the faith – that they have put in colleges, universities, and polytechnics as the country's primary vehicles for responding to 21st century challenges and opportunities.

“ The Canadian post-secondary system has formidable strengths and significant challenges.

TOWARD GREATER ACCOUNTABILITY

This report addresses the above questions of institutional and system-wide quality assurance, focusing on the Ontario as a case study. The timing of this report is fortuitous as Ontario recently elected a new government.

The unrelenting support for post-secondary education (PSE) by previous Liberal governments under Dalton McGuinty and Kathleen Wynne, most notably around election times, resulted in a steady expansion of the colleges, universities, and polytechnics, greater financial support for individual students, tuition freezes, and the like, even in the face of declining or limited returns on those pro-

vincial educational investments. Since taking office in June 2018, the new Progressive Conservative Ford government has cancelled proposed large-scale investments in university-polytechnic campuses in Brampton, Milton, and Markham, plans for a Toronto-based French-language university, and plans for a new law school at Ryerson University. The current government clearly does not share the Liberals' seemingly open-ended interest in PSE expansion, particularly given its mandate to reduce the provincial deficit.

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It is also possible, given Premier Ford's public statements about transparent investigations of government spending, that the funding of post-secondary education could be subjected to a rigorous review. With more sceptical hands at the helm, the next year to two could see demands for much greater accountability and quality assurance.

This paper will give a brief review of the emergence of greater government oversight of higher education that occurred as more public resources were allocated to colleges, universities, and institutes in the 1980s and 1990s. A commentary on how institutions respond to expectations for performance standards will follow. We will look at the evaluators of higher education performance, both public and private, and then move to the case study of how the performance of the PSE system is evaluated in Ontario. From this study we can draw the following conclusions:

1. Government-mandated performance indicators, particularly in Ontario, do not currently provide the evidence needed to evaluate and therefore improve the effectiveness and the quality of higher education.
2. Provincially mandated reports addressing higher education performance fail to clarify the difference between accountability for money spent and indicators of high standards.
3. New approaches are required to ensure the priorities of students, families, governments, employers, and other stakeholders are reflected in measures of quality and impact.
4. Greater emphasis must be placed on metrics that relate to outcomes, such as graduate employment and income, the commercial impact of basic and applied research, and other outcomes that relate to the specific expectations that government, parents, students, and the general public have for post-secondary institutions.
5. The data need not be generated directly as official institutional or government initiatives but could, with appropriate collaboration and data sharing, be provided by external agencies.

The Quality of Higher Education: Government Oversight

Public higher education institutions in much of the western world held impressive status through to the 1960s. There were fewer institutions then, and the expectation was that they would stand, cathedral-like, as beacons of achievement and scholarship within their host cities and regions. A small number of these institutions had a strong commitment to research.

In both Canada and the United States, community colleges and smaller liberal arts colleges and public universities had limited research obligations. But expectations soared following the rise of science and industry during World War II, sparking greater interest in the sciences. Furthermore, governments recognized the need to create opportunities for women, minorities, and people of lesser means who had previously not had access to advanced education. Universities, colleges, and institutes grew in number, enrolments skyrocketed, and research output exploded in scale and diversity (Harris 1976, Jones 2014, Thelin 2011, Zeleza 2015).

For a time, universities enjoyed ready access to public funds and comparatively uncritical supervision by governments. Institutions generally kept up with demand from students for spaces, and graduates enjoyed ready access to the ever-expanding managerial class and professional jobs across the country. This pattern was reproduced across the industrial world as governments realized that higher education and research made important contributions to regional prosperity. Costs grew rapidly as faculty salaries and the cost of facilities, libraries, and other elements escalated.

As the university system drew in greater numbers of students, many of them with weaker high school backgrounds or limited finances, institutions had to provide additional support systems. Governments responded with increased financial support for undergraduates and graduate students. The increased profile associated with the post-secondary system, perhaps inevitably, attracted both greater accolades and more intense attention.

The election of Margaret Thatcher as the Conservative prime minister of the United Kingdom in 1979 brought into power a severe critic of government funding, especially government transfers to universities (Grove 2013, Trow 1994).

Thatcher introduced a comprehensive evaluation system that monitored the effectiveness of teaching and research, forcing institutions to change radically the way that they approached and monitored the core functions of the university. The impact was dramatic:

Neoliberal reforms in education were expressed earliest and most dramatically in Great Britain as part of Thatcher's vision for shrinking government and harnessing market forces. An extensive and intrusive audit system linked to institutional budgets and designed to measure teaching and research quality of all departments and universities prompted a radical reordering (and shrinking) of budgets, changes in hiring practices and research focus, and the closing of some departments. The results of these audits were published by leading newspapers as rankings - or "league tables," as they are called in the U.K. - which increased their impact. (Espeland and Sauder 2016, chapter 3)

The UK approach did not go unrecognized and other countries and jurisdictions launched their own reviews of higher education.

Given the broad set of expectations for college and university activity, it is not surprising that a plethora of organizations and agencies, purporting to have the definitive measure of higher education quality, have surfaced in recent years (Espeland and Sauder 2016, Rauhvargers 2013). The United States, which lacked central budget control over institutions, emphasized measures to make higher education more amenable to the needs of business with greater emphasis on science and technology, including at the elementary and high school levels.

The result, as Espeland and Sauder comment, was that “the bedrock American principle of education as the entry ticket to the middle class has morphed into a billion-dollar industry of getting kids into the ‘best’ schools in order to maintain upper-middle-class status” (Espeland and Sauder 2016, Chapter 3). Most faculty members resented the changes, although those who came to the forefront in the evaluations discovered that money did, indeed, follow the rankings systems. The Ivy League and other elite schools, like Stanford, quietly embraced the national celebration of their excellence, which only increased their desirability.

In Canada, most government-endorsed university, college, and institute evaluation systems covered certain core elements. These measures, officials argued, reflected public priorities and expectations and would justify continued financial support, or reduced funding.

For governments, the introduction of performance measures sent clear signals to the institutions. For the universities, colleges, and institutes, some of the measures became targets for managers and academic units. There were distorting effects. For example, emphasizing certain measures such as graduation rates and number of graduates put pressure on units to graduate more students, even if it meant lowering standards.

In general, performance measures considered such elements as:

1. **Admissions.** What is the composition of the study body? Are women, underrepresented minorities, and the financially challenged properly represented in the student population?
2. **Graduation.** What percentage of the entering students graduate? Do they graduate in a timely fashion or are their periods of study extended unreasonably?
3. **Employment:** Do graduates get jobs and do they get good jobs, defined primarily in terms of income?
4. **Research Impact:** Are the researchers recognized nationally and internationally as leaders in their disciplines? Do researchers commercialize their discoveries?
5. **Regional Impact:** Does the institution contribute to regional economic development, particularly in terms of producing highly qualified personnel, new businesses, support for existing firms, and major socio-cultural contributions?

There are other elements of particular concern to the institutions themselves, such as the quality of campus life and the services provided to students, achievements in classroom instruction, success in extra-curricular activities, the level of fund-raising, and alumni relations. These are routinely studied within and even between institutions and often figure prominently in student recruitment and promotional efforts. Some of them factor in the external and public evaluations of universities by ratings organizations and journalists. But few of these attract the attention of governments, which focus instead on the key indicators that capture government’s belief in what higher education should be (Espeland and Sauder. 2016).

THE PERILS OF PUBLIC RANKINGS

Universities, colleges, and polytechnic institutes have mixed feelings about the range of public rankings and external evaluations available to parents and students these days. The best-known in Canada is *Maclean's* magazine's annual ratings of universities, which is eagerly awaited by parents when Grade 12 students are crossing the country to visit universities as they prepare their applications.

Of course, institutions that score extremely well in one or more categories embrace the results and celebrate their success in advertisements and recruiting efforts. On the other hand, in 2006, the major research-intensive universities criticized what they labelled the “arbitrary methodology” of the *Maclean's* rankings and withdrew from the survey (Alphonso 2006/2018). *Maclean's* made changes to the survey and how the analysis was conducted that addressed the major concerns of the disgruntled universities.

Maclean's and other university rankings, particularly the well-known *US News & World Report's* annual evaluation of American colleges and universities, are imprecise instruments at best and have done much to fuel a status war among institutions. These rankings use measures that do not relate well to students' needs or the actual effectiveness of the institutions in preparing their attendees for the world beyond graduation. As one critic wrote:

There is no evidence which quantifies, either with academic metrics or philosophical analyses, just what value they [universities and colleges] are contributing to the world of higher education. The rankings say almost nothing about education. (John Kelly, 2016)

Yet institutions respond to and “manage” these rankings, particularly in the United States but also in Canada, looking to allocate funds to areas most likely to increase their overall ranking. More than a decade ago, several institutions discovered that money spent on library holdings and student awards produced better “bang for the buck” than extra spending in other areas and so they made intentional investments designed to move them up the rankings. In the United States, the most common tactic is for institutions to spend large sums recruiting applications from students who are unlikely to be accepted, a measure that increases their rejection rate and improves their overall ranking (Toor 2002).

“ Love them or hate them, external evaluations are part of the culture of global higher education and are particularly important for international students.

The attention given to international rankings, particularly that of the *Times Higher Education* in the UK, is often front-page news when Canadian institutions rise up or slide down the ratings and is indicative of the growing importance that these blanket evaluations have on universities. In October 2018, the University of Toronto highlighted the welcome news that *US News and World Report* had ranked it the top university in Canada, among the top 10 public universities in the world, and among the top 20 universities on the planet (Sorensen 2018).

Love them or hate them, external evaluations are part of the culture of global higher education and are particularly important for international students.

Where institutions are on solid ground is their complaint about the inability of the vast majority of evaluation systems to capture the essential contributions of a university, college, or institute. Counting publications and research grants does not come close to describing the impact of ideas, discoveries, and policy work. Reporting on graduate rates is helpful (and done too rarely and too selectively) but these say nothing about the personal challenges and limitations that an institution's students might have brought to their studies or encountered along the way to graduation.

It is difficult to quantify the impact on students of a rich, engaging residential campus life compared to the austerity of a bland and poorly funded commuter university. The explosion of on-line education and the more controversial question of the role of MOOCs (Massive Open On-Line Courses) has also raised questions about the university and college “experience” (Rhoads 2015, Nanfi-

“ It is difficult to quantify the impact on students of a rich, engaging residential campus life compared to the austerity of a bland and poorly funded commuter university.

to 2012). Some universities, colleges, and institutes deliberately and with great achievement make substantial contributions to regional and national economic development. Others focus on international academic and professional engagement. Current evaluative systems say little about either achievement, both of which require extensive effort.

Adding employment outcomes to the mix also generates a strong reaction at the university level, if only because many faculty members do not see it as their job to prepare students for the workforce; they see themselves as educators and not trainers. They

see focused career preparation as the job of professional programs, community colleges, and polytechnics. But for many students, determining an institution's effectiveness in converting education to employment is a crucial element in an admission decision.

As the development of evaluative systems for Canadian universities, colleges, and institutes is considered, it is important to keep in mind Espeland and Sauder's astute observation(2016):

Measures produce unintended consequences, misguided incentives, and misplaced attention. More generally, they transform what they purport to only reflect, altering the social world in unexpected ways. They are constitutive as well as reactive. This means that public measures are not neutral enterprises, nor can they be understood strictly in terms of their utility or technical achievement, as their advocates often claim. They carry with them assumptions about value, merit and goals, as well as what is good, normal and right.

Measuring Higher Education Performance in Canada

While we are starting to evaluate institutional achievements, even the concerted efforts at the university level fall well short of political and government expectations. Although Canada boasts more than 130 colleges and polytechnics enrolling over 700,000 full-time and 250,000 part-time students in 2016 (Statistics Canada 2017), there is no national or even provincial performance ranking.

The institutions are, however, subject to intensive reviews by provincial governments with, in some cases, key performance indicators driving some portion of the funding. Performance indicators appeared in Ontario and Alberta in the 1990s and were later tied to specific funding initiatives. In recent years, provincial governments have developed other methods of assessment including multi-year agreements between an institution and the government whereby the institution sets out its goals and objectives in the context of the province's expectations for higher education in the province. British Columbia, Saskatchewan, and Quebec also have accountability protocols and performance indicators that are not directly related to funding.

The approaches and methods employed across Canada to evaluate higher education are complex and ever-changing. Nowhere is this more true than in Ontario, the focus of our case study, which underscores the issues and challenges discussed above.

Ontario: A Case Study

A decade ago, a report prepared for the Higher Education Quality Council of Ontario (HEQCO) concluded, "Direct measures of learning represent the biggest gap in terms of indicators: there are, simply put, none available for the general undergraduate population" (HEQCO 2008). Evaluation and quality assurance are difficult to measure, highlighted by the fact that there is no systematic means of evaluating the core enterprise – the effectiveness of teaching and learning efforts – of colleges, polytechnics, and universities. This does not mean that an effort has not been made. Post-secondary institutions have tried to evaluate their achievements in a variety of ways.

SELF-ACCOUNTABILITY AND PERFORMANCE EVALUATION: UNIVERSITIES

Ontario has shown considerable commitment to the idea of quality assurance. The government and institutions, the latter through substantial internal institutional research capacity, have established the organizations, data collection procedures, and administrative processes required to strengthen evaluation abilities at both the institutional and system-wide levels.

The Higher Education Quality Council of Ontario, for example, focuses on improved access for underrepresented groups, ensuring that students have the ability to succeed in the workforce, and that the provincial system functions more effectively in the provincial interest (HEQCO undated).

Separately, the Ontario College Quality Assurance Service was established to “deliver credential validation and quality assurance processes for the public college system in Ontario” (Ontario College Quality Assurance Service undated).

The Ontario Universities Council on Quality Assurance provides a province-wide service for public institutions, with a focus on improving the overall quality of individual institutions and the system as a whole. As the OUCQA describes its mandate:

The task of the Quality Council is, above all, to ensure the continuing achievement of a defined level of quality in the design and delivery of an institution’s programs, with particular emphasis on the desired learning outcomes and Ontario’s degree level expectations, as well as on the monitoring of an institution’s compliance with its Institutional Quality Assurance Process (IQAP) in its cyclical program reviews. (OUCQA undated)

Ontario, in sum, has substantial organizational and professional resources committed to quality assurance. These organizations work closely with institutions, respecting their autonomy and seeking to provide the government of Ontario with advice, research, and analysis. Their mandates and roles have shifted as expectations around evaluation and quality assurance have changed. The three organizations have provided a great deal of useful research and have sought to guide the debate about the role and effectiveness of publicly-supported universities, colleges, and institutions.

“ Broad accountability in colleges is the responsibility of the boards of governors.

There is little dispute that universities, colleges, and polytechnics provide a significant benefit not only to students but society in general. The activities in universities that generate these benefits are funded by a variety of sources, which makes financial accountability somewhat complicated.

The total revenue derived from all sources of all universities and degree-granting colleges in Ontario in 2016-17 was \$16.5 billion. Student tuition and fee revenue provided \$5.8 billion. The government of Ontario provided \$4.3 billion. The government of Canada provided \$1.5 billion, primarily for research (Statistics Canada 2018). This level of government support underpins calls for comprehensive and timely accountability.

Such accountability is realized through a number of audits the universities must complete to ensure that the funds are being spent on the programs and services set out in the universities’ budgets. Financial reports of universities, including audits, are public documents and, in that sense, universities are accountable to other providers of funds such as students, private enterprises, and individuals who support universities through tuition, fees, endowments, and gifts.

The responsibility for accountability lies primarily with the board of governors or regents, or the university council and the executive head of the institution. The appointment or election of governors differs among institutions but in general, boards represent a broad cross section of society.¹ Boards appoint a president, rector, or principal and hold her or him accountable for performance objectives that are normally established and revised annually.

While the president and board are held accountable for the broad goals and objectives of the university, faculty are also held accountable for their performance. For decades many universities have had in place student evaluations of teaching performance and there have been systematic processes entrenched in universities for a long time to evaluate research. These include tenure and promotion processes for faculty members, departmental reviews, and the built-in assessment of research performance in competitive federal-funded grant applications.

Finally, Ontario universities are accountable to themselves and others through a range of internal checks and balances that reflect both input and output measures, the latter an important part of the process of granting tenure. It is also clear that this “accountability” is wrapped in the fabric of marketing as universities clamour in a very competitive environment for high school graduates with top grades, faculty with high research potential, and research dollars.

SELF-ACCOUNTABILITY AND PERFORMANCE EVALUATION: COLLEGES

The community colleges, and recently the polytechnic institutes of Ontario are the younger siblings of the university system. Created by an Act of the provincial legislature in 1968, they were designed, primarily, to provide high school graduates with post-secondary programs ranging from one to three years that would lead directly to gainful employment in the labour market. More specifically, the value of the colleges is captured by the intent of the legislation where characteristics such as “educational mobility,” “occupational needs,” and “cooperation with business and industry” are emphasized (Ontario, Colleges of Applied Arts and Technology 1967).

Colleges and polytechnics have changed, and many programs today facilitate transfer to universities. Several colleges and polytechnics offer applied four-year degree programs and are engaged in applied research and technology transfer. All colleges offer training and development programs and retrain those currently working or unemployed to meet new requirements in a technologically changing world.

The activities of colleges and polytechnics are funded from a variety of sources. Slightly more than 50 percent of the \$3.7 billion operating budgets of colleges and institutes is derived from provincial grants while tuition fees account for 28 percent. As with universities, the province requires colleges and polytechnics to submit a number of audits to the government, providing detailed financial accountability for most of the sources that fund the colleges.

“ Ontario universities are accountable to themselves and others through a range of internal checks and balances that reflect both input and output measures.

Broad accountability in colleges is the responsibility of the boards of governors. The process by which governors are elected and appointed is mandated by a provincial council.² The board appoints a president, holding her or him accountable for performance objectives that are usually established and revised annually. These include financial targets related to fundraising, corporate partnerships, the development of new programs, and building plans. Similar to universities, the academic/administra-

tive management team is responsible for achieving the institution's goals and the team's success is measured as part of annual personal performance reviews.

In step with the universities, colleges and institutes have prepared detailed and lengthy five- to 10-year strategic plans. These plans, similar to university plans, establish goals that, if achieved, would enhance the quality of teaching and learning, applied research, or community service. To ensure success, the plans include a clear blueprint identifying the actions necessary to reach each goal. They also list the objective measurement tools that will audit success.

The responsibilities of individual faculty are tied to the institution's strategic goals. Faculty members are held accountable to the institution through a collective agreement that applies to all colleges.³ Faculty contracts and compensation are rarely linked explicitly to the broad goals of the institution but instead depend on discipline-specific teaching and related criteria linked to learning performance.

From a financial point of view, all colleges and polytechnics are required under provincial legislation to conduct financial, enrolment, and other audits to ensure that resources, regardless of source, are appropriately allocated and accounted for in accordance with the short- and long-term financial plan set down by the institution. For example, financial audits confirm, or not, that funds designated for increasing enrolment of rural students are spent for that purpose.

Ontario colleges are accountable to themselves and stakeholders by means of a range of other internal checks and balances that reflect both input and output measures such as the assessment of teaching performance, strategic planning audits, and ongoing reviews of the qualifications for academic and non-academic positions in the college.

INDEPENDENT, NON-GOVERNMENT MEASURES OF PERFORMANCE: UNIVERSITIES

The list of "external checks" on program quality in universities is impressive. Nursing students must pass a provincial exam before becoming a registered nurse and the success rate on those exams by institution is public knowledge. Accounting students are required to pass rigorous external examinations before receiving their CA, CGA, or CMA designation and success rates by institution are available. In many fields of health and medical technology education, university graduates must meet standards established by the professional association regulating the discipline before they receive the appropriate designation that enhances employment in their field in Canada and elsewhere. The curricula for engineering programs are developed in concert with professional engineering associations partly to ensure that graduates meet professional engineering standards.

However, many university programs are not linked to professional employment in the labour market, which raises the big question: To what extent are universities responsible to meet the specific needs of the workplace?

Securing jobs for graduates has not been a traditional role for university. However, current expectations by students, parents, and the government suggest that "securing a good job" is as important an outcome of an arts and science education as a professional education. Should a university with its centuries old values and beliefs associated with liberal arts and science education modify academic programs to include more practical, job-related components?

It seems clear, given the reaction of the Association of Universities and Colleges Canada (now Universities Canada) to Professor Coates' critique of the role of universities as it relates to the job market, that universities do want to be seen as producing "job ready" graduates. But employers are less than fully enthusiastic about that approach and the uneven workforce experiences of graduates has led to considerable discussion about the appropriate role and functions of universities (AUCC 2015, Coates 2015).

Perhaps the fact that most general arts and science graduates do reasonably well in employment and earnings, and the majority of students report that their university experience has prepared them not only for the workforce but for life in general is sufficient accountability (Blackwell 2016/2018, quoting Ross Finnie). However, that employers report significant levels of dissatisfaction with the career readiness of university graduates suggests that all is not well (Rana 2018).

“ Should a university with its centuries old values and beliefs associated with liberal arts and science education modify academic programs to include more practical, job-related components?

In addition to the above non-government performance benchmarks, there are several international "tests" to measure university education performance. Ontario and many Canadian universities employ the US-based National Survey on Student Engagement (NSSE). This survey-driven measure of university quality ranks universities for their level of academic challenge, student-faculty interaction, active and collaborative learning, enriched academic experience and supportive environment.

The characteristics of the learning environment may be correlated with learning outcomes, but they do not provide a direct measure of the quality of learning (Pascarella and Terenzini 2005). An alternative approach for assessing quality is to measure cognitive development or gains in cognitive ability using the College Learning Assessment (CLA). Another approach is to use teaching evaluations by students. The drawbacks of doing so are well documented, but these evaluations can provide information on another dimension of higher education quality.⁴

The Canadian University Survey Consortium (CUSC) produces a questionnaire that is administered currently by 31 universities working cooperatively to gain a better understanding of the Canadian undergraduate experience (CUSC 2015). Participation is open to any degree granting university that is a member of Universities Canada. While this instrument concentrates on student demographics and participation in extra-curricular activities, it does pose questions addressing the students' satisfaction with their university.

Satisfaction is not, however, the same thing as quality. Students may rate an institution as having a "good library," a wide range of on-campus food outlets, good athletic facilities, and extra-curricular activity, but these features offer little insight into what one would consider to be a high-quality institution. Moreover, most students have little or no experience of other institutions. Their responses, which imply comparisons (excellent is, by definition, assumed to be better than something else), are therefore suspect as to their reliability or utility.

Research, a fundamental and essential characteristic of a university, is subject to a variety of external checks and balances. Virtually all applications by university faculty for external research grants are carefully assessed and evaluated. The major Canadian research funding agencies, including the Social Science and Humanities Research Council, Natural Sciences and Engineering Research Council, and Canadian Institutes of Health Research, demand detailed appraisal of research applications by recognized scholars. Most scientific journals that received research papers for publication require these submissions be peer-adjudicated before a decision is made to publish. Manuscripts for book publication also receive detailed scrutiny.

Regardless of the source of funding, most university research embodies some audit of research output. Corporations and foundations are not likely to continue to fund university research if the results do not meet expected standards.

INDEPENDENT, NON-GOVERNMENT MEASURES OF PERFORMANCE: COLLEGES

Like graduates from university programs, graduates from Ontario's colleges and polytechnic institutes enjoy a strong, positive return on the investment made by the students, families, and government.⁵ While this may satisfy those looking for a narrow, economic measure of performance, general accountability requires a broader scope.

External evaluation of the quality of learning is more widespread in the college system than in universities and encompasses two broad measures of quality. The first is the system of program advisory committees, mandated by the Ministry of Training, Colleges and Universities.⁶ Under the minister's binding policy directive, each funded post-secondary program in a college (or polytechnic institute) must appoint a program advisory committee composed of representatives from the community who have experience directly relevant to the employment prospects of graduates. Colleges are required to create and approve, at the board level, a bylaw that establishes the structure, terms of reference, and procedures for these committees.⁷ Program advisory committees are charged with ensuring that the learning outcomes of the program meet the standards required for an entry-level job in various fields of employment related to the program.

For example, in print journalism programs, members of the committee would be drawn largely from local, regional, and national news organizations. They advise the college of changes in the field and the need to ensure that the curriculum is modified to meet these changes. Few, if any, college programs escape the scrutiny of program advisory committees.

A second external quality measure, professional accreditation, is similar to that discussed for universities. Nursing graduates must pass provincial exams to become a Registered Nurse. Accounting students graduating from colleges must meet the professional practice standards established by various professional accounting boards.

There are currently national accreditation standards for programs such as fitness leadership, social worker, and the building trades. In engineering technology, students must meet provincial standards established by the Ontario Association of Certified Engineering Technicians and Technologists to become a certified engineering technician or technologist. The breadth and depth of curricula in these programs is driven by the expectations of those who employ graduates. Combined with formal program advisory committees, the certification of professional programs exceeds any government-mandated measure of institutional quality.

There are several international “tests” of performance that are employed, or could be employed, by Ontario colleges. Some Ontario colleges employ the US-based National Survey on Student Engagement (NSSE) and its college counterpart, the Ontario College Student Engagement Survey (OCSES). As noted earlier in the discussion on university education, these are not direct measures of the quality of teaching and learning. Other methods, such as student surveys of teaching quality, can provide a partial measure of performance. Finally, in terms of detailed reports on student evaluation of college programs and services, there is no external, non-government parallel to the *Maclean’s* survey.

In addition to the fundamental role of teaching, training, and learning, many colleges in Ontario partner with businesses to provide applied research and assist with technology transfer. While there is little published research estimating the return on these investments, the fact that this is a growing mandate of the colleges and polytechnics supported by leading Canadian and international companies speaks to the value of such activity. (For a recent detailed review of the evolution of research in Ontario colleges and the challenges this presents, see Rosenkrantz 2013). Applied research and technology transfer are not part of the expected duties of all faculty at community colleges. However, as noted above, college and polytechnic faculty involved increasingly in both activities often develop valuable partnerships between the institution and a private or public enterprise. Similar to universities, the test of the quality of these activities is found in the level of renewal and expansion of contracts.

“ Our review and evaluation of internal and non-government external measures of performance and accountability suggests that post-secondary institutions in Ontario are not without careful scrutiny of those characteristics of learning important to employers and government.

A sign of the importance of community college research is the College and Community Innovation (CCI) program. The program was launched in 2004 as a joint pilot project of the Natural Sciences and Engineering Research Council of Canada, the Social Sciences and Humanities Research Council of Canada, and the Canadian Institutes for Health Research. Acknowledging the pilot’s success, the government of Canada made CCI a permanent program in *Budget 2007* (Canada, Department of Finance 2007). As of 2013, through the CCI program more than five thousand businesses were partnered with colleges and institutes dealing with applied research, innovation and technology transfer. This represents \$72 million in contracts (ACCC 2014). Projects are selected for partnership through a peer review process that includes assessment by a private sector advisory board composed of leaders from the Canadian business research and development sector. Each of the recipients from the CCI competition will receive \$2.3 million over five years.

Our review and evaluation of internal and non-government external measures of performance and accountability suggests that post-secondary institutions in Ontario are not without careful scrutiny

of those characteristics of learning important to employers and government. The existing checks and balance on research, while not perfect, do provide institutions with valuable information, but they are less than comprehensive and conclusive.

And so, we turn our attention to the provincial government's approach to measuring higher education quality and performance.

Ontario Government Measures of Higher Education Performance

In the past two decades, Ontario governments have not only expanded their financial and enrolment audits of institutions and required colleges and universities to provide the government with detailed multi-year plans but, increasingly, mandated performance measures for colleges and universities.^{8,9} The provincial government requires that post-secondary institutions report on the time required for students to graduate, what percentage of students obtain employment after graduation, the proportion of students who default on student loans, and the extent to which students are satisfied with their education. A portion of annual government funding has been associated with some of these performance measures.

This is a major exercise. Data must be collected and processed by staff at the university, polytechnic, or college to ensure accuracy. These data are then reviewed by one or more senior administration members and eventually signed-off by the president, principal, or rector. In the end, most of these indicators fail to provide a reasonable measure of the quality of university or college education, while others duplicate existing, independent signposts of quality.

These indicators seek to meet the government's goal of moving students through the institutions as quickly as possible. They recognize universities, polytechnics, and colleges that admit less-wealthy students (regardless of academic prowess) who have assumed a larger financial burden than other students, and encourage market-related programs of study tied to employment. Furthermore, as noted earlier, the measures may operate in a perverse manner and encourage a commitment of scarce resources to practices that do little to improve the quality of higher education. In short, institutions may "game" the rating system to maximize their scores and hence receive additional funding from the province.

More than two decades ago, Ontario's provincial government appointed a panel to recommend how Ontario could maximize the social value of higher education. As part of the terms of reference, the government released a report outlining the province's expectations for higher education performance (Ontario 1996). The five goals envisaged following the review process were excellence, accessibility, a range of programs and institutions, accountability, and responsiveness to evolving needs.

Ten years after the report was published, Ontario's new Liberal government launched yet another review of post-secondary education, this time headed by the former premier of Ontario, Bob Rae. The mandate for this review included directions to examine and report on "funding model[s] that would link provincial funding to government objectives for the system, including better workers for better jobs in an innovative economy and an accessible, affordable and quality system" (Rae 2005).

In Ontario's 2005 budget, the government introduced a plan to commit \$6.2 billion to post-secondary education between 2005-2006 and 2009-2010 (Ontario, Ministry of Finance 2005). An important part of the plan was a multi-year accountability agreement (MYAA) between the government and each post-secondary institution. The bilateral agreements commit the government and institutions to a partnership focused on achieving goals established by the government. They confirm what is expected from each institution, along with indicators that will be used to quantify the outcome.

The provincial government specified four broad goals for higher education in Ontario: access, quality, accountability, and funding. Each institution was required to help the government achieve its goals by making specific commitments related to each goal. For example, under the "Quality" goal, a university agrees to:

1. Comply with the Key Performance Indicator initiative;
2. Participate in the National Survey of Student Engagement, Canadian Graduate Professional Student Survey and Canadian Standard on Review Engagements, and submit the results of these performance instruments to the ministry;
3. Cooperate with the Higher Education Quality Council of Ontario;
4. Provide the Ministry with multi-year quality strategies; and
5. Cooperate with the College-University Consortium Council (Now the Ontario Council on Articulation and Transfer). (See for example, Ontario 2005)

Appendices to the multi-year accountability agreements specify, among other things, the stipulation that the release of a university's annual financial allocation is conditional on the successful completion of the annual review of the multi-year action plan associated with the MYAA. That system, discussed below, was replaced in 2013 with the strategic mandate agreements (SMAs).

For the college system, there are two notable and specific challenges. Under the "Access" goal, the government commits additional funding to "allow Ontarians living in small, northern and rural communities to have access to a range of high-quality college programs and services" (Ontario 2005). Colleges were required to include in the MYAA the extent to which these funds have contributed toward the goal. In addition, under the access umbrella, colleges were to continue to improve the transition to college for students who are no longer in secondary school. The other difference

between the directive to the colleges compared to that for the universities is a requirement that colleges and polytechnics participate in a Canada-wide survey on program quality.¹⁰

“ “ These indicators seek to meet the government's goal of moving students through the institutions as quickly as possible.

Of particular interest, the Rae Report led to the establishment of the Higher Education Quality Council of Ontario (HEQCO) that has a broad mandate to advise the government on system performance, devise multi-year agreements with universities and colleges that establish expectations and quality improvement targets, and suggest how to link public investment to higher-education institution performance (Rae 2005).

Notwithstanding the millions of dollars spent on studying the system during the 15-year period up to 2005, the Rae Report gave no explanation as to why universities, polytechnics, and colleges prior to 1995 had failed to provide high quality education within the framework of existing provincial and institutional mechanisms. The province was not satisfied with the accountability of higher education to those who provided the major source of funding.

The tone of higher education policy changed in November 2013 when the province introduced the concept of “institutional differentiation” to higher education (Ontario 2013).¹¹ MYAAs were replaced with strategic mandate agreements (SMAs). Starting in 2014, each university and college annually submits their SMA, which sets out what they believe to be their unique programs, processes, and values, their strengths, and their long-term goals. The government aligns its policies and funding commitments accordingly.

In short, as of 2013, the province establishes goals for colleges and universities to achieve and uses its funding levers to steer institutions in the desired direction. In the framework document (Ontario 2013), there are 25 references to “quality” or more frequently “high-quality” but no clear definition of what a high-quality institution is, other than to emphasize that the new “institutional differentiation” will sustain or create high quality.

To carry out the policy, more than 30 mandatory metrics are used. They constitute a mix of existing provincial KPIs, a number of existing external metrics, and a range of new measurements. Just how these metrics will be translated into indices of quality remains unknown.

A 2015 higher education policy document, *Focus on Outcomes*, prepared by an advisor to the Ontario government, quoted a professional assessment of the quality issue by stating that: “The province no longer funds ‘universities’ per se” (Ontario 2015). According to this observer, “the province funds quantifiable outcome(s) or achievement(s) it wants from universities measures of ‘quality’ and ‘improving the student experience’” (Ontario 2015). As a result of consultations with various groups, *Focus on Outcomes* concludes: “Sector stakeholders generally believe the quality of post-secondary education in Ontario needs sustained improvement” (Ontario 2015, 10).

Quality improvement is a noble and lofty aspiration, but it is our conviction that if quality is to be a factor in determining the flow of resources to post-secondary institutions, much needs to be done to understand what quality means in the context of university operations (and higher education in general) and how it is measured.

Ontario Government Key Performance Indicators

Three Key Performance Indicators (KPIs) for the universities were introduced in 2001-2002:

1. the percentage of graduates who were employed 6 months following graduation;
2. the percentage of graduates who were employed after two years;
3. the percentage of full-time students who completed their degree within a specified period of time.¹²

Initially, universities were ranked according to their score and divided into the top, middle, and bottom third for each indicator. The money (one percent of the total funding allocated to universities) that accompanied a university's performance was based on the undergraduate enrolment level and the ranking of the university for each KPI. The following year, the formula was changed to:

1. expand the enrolment factor to include graduate students;
2. create a benchmark for each indicator at 10 percent below the average score for the indicator.

Institutions at or above the benchmark would receive performance funding in proportion to their performance compared to the benchmark, adjusted for the enrolment level of the institution. If a university's score for an indicator was below the benchmark, funding under the program did not flow.¹³ Underscoring the discussion related to quantitative measures and quality outcomes raises the question: "Are there any examples of PSI [post-secondary institutions] that have improved their performance as a consequence of using accountability information?" (Canadian Council on Learning 2011. 4). This remains a matter of intense debate in the profession, as researchers seek to connect the quality assurance process to institutional activities and procedures. Given institutional complexities, autonomy, history, and mandates, it is not surprising that it is difficult to provide systematic evidence of the connection between quality assurance, institutional actions, and outcomes for students and the research enterprise. This is, indeed, the greatest challenge for quality assurance processes: proving that they work.

In the college system there are five KPIs that measure the performance of a college's activities: student satisfaction, employer satisfaction, graduate satisfaction, employment rate, and graduation rate.

Three of these are used to secure performance funding for a college based on the college's score relative to the adjusted performance of all colleges.¹⁴ The indicators for funding purposes measure employer satisfaction, employment rates, and graduate satisfaction. Within each of these broad categories, there are numerous questions although interest tends to focus on certain key questions, particularly the percentage of graduates of a given college that obtained full time employment within six months of graduation.

Based on the scores from these questionnaires, which are administered by an independent third party, a block of the annual funding designated for colleges is then distributed to them. These are intensive, time consuming, and expensive methods for calculating indices of something – but not necessarily the quality of education.

Summarizing Performance Measures in Ontario

It is clear from the above description and analysis of performance and accountability measures that Ontario’s post-secondary education system is increasingly under review and scrutiny. Table 1 summarizes the current state of performance systems for universities.

The breadth and depth of internal and external, non-government measures of program quality, both graduate and undergraduate, suggest that effective, periodic, and objective checks on the quality of teaching, learning, and research do exist.

So what do the government-mandated KPIs add to the overall evaluation of the quality of university education and research? Any measurement of performance should include a well-defined link between the criteria employed to measure performance and what is meant by performance. To reiterate, performance ought to be linked to institutional missions, values, and goals with a clear understanding of what high quality university education and research entails.

Government-mandated indicators of performance and multi-year agreements may satisfy the government’s need to provide a degree of control over universities, but it is difficult to envisage the link between these efforts and institutional performance.

TABLE 1
MAJOR METHODS TO EVALUATE THE PERFORMANCE AND ACCOUNTABILITY OF UNIVERSITIES IN ONTARIO

SPECIFIC MEASURE	OBJECTIVE OF THE MEASURE
UNIVERSITIES	
Internal	
1. Faculty promotion Tenure and compensation review	Quality of teaching and research
2. Board of Governors Review of Executive Head	Achievement of strategic goals, fiscal accountability and leadership
External: Non-Government	
3. Research granting agencies/boards, etc.	Evaluate research
4. Professional associations	Certify graduates’ credentials for entry into specific fields of employment
5. <i>Maclean’s</i> magazine	Extensive student survey designed to rank universities according to a wide range of criteria
7. National Survey on Student Engagement	Survey similar to <i>Maclean’s</i> but focus on different aspects of university experience
8. Canadian University Survey Consortium	Designed to examine characteristics of universities that support effective learning Assembles data on student demographics, etc. with some measures related to satisfaction.
9. Ontario Council on Graduate Studies	Evaluates and reports to the government on the quality of graduate programs
External: Government	
10. Key Performance Indicators	Three indicators tracking how quickly university graduates obtain jobs and the proportion of students who graduate from an entering class
11. Multi-year agreements/SMA	Three year moving reports that track how universities meet provincially-set goals. The SMA involves an annual report linked to the new framework of “institutional differentiation.”

The key performance indicators established by the provincial government and used to determine a small portion of funding are not completely related to the fundamental purpose or value of the academy. It is not clear whether there is a direct connection between student employment within a specific period of time and how long it takes a student to obtain her or his degree and the quality of higher education. The indicators are directed more to encourage universities to get students to complete their education and find jobs for graduates.

One cannot rule out that such messages may possibly lead to grade inflation and distorted job-market signals. In American institutions, most notably a small number of law schools, these expectations resulted in the submission of inflated employed statistics designed to improve the institutional ranking (Espeland and Sauder 2016). The internal and external, non-government measures of performance, while still not perfectly suited to judge the performance of what a university ought to do, are closer to determining a measure of quality than are the KPI measures. Furthermore, a number of the external non-government measures of quality simply duplicate what the government KPIs measure.

“ One cannot rule out that such messages may possibly lead to grade inflation and distorted job-market signals.

From a university's perspective, we would assume that quality would mean the institution's ability to graduate students with enriched knowledge, enhanced analytical and critical thinking skills, and improved research ability that expand society's understanding of all facets of matter, life, and experience. A study involving 2,300 US college students found that 45 percent of students showed no significant improvement in the key measures of critical thinking, complex reasoning, and writing by the end of their sophomore year (Arum and Roksa 2011). This widely-debated study argued that universities covered in their survey were not effectively teaching some of the most central skills and elements that they purport - and promise - to convey to students. It is too early to assess the efficiency and effectiveness of the new SMAs, but it is clear they are designed to align universities more closely to the province's objectives.

For the college system, Table 2 summarizes the various performance measures applied to these institutions.

**TABLE 2
MAJOR METHODS OF EVALUATING THE PERFORMANCE AND ACCOUNTABILITY OF COLLEGES IN ONTARIO**

SPECIFIC MEASURE	OBJECTIVE OF THE MEASURE
COLLEGES	
Internal	
1. Faculty tenure review	Quality of teaching
2. Board of Governors Review of college president	Achievement of strategic goals, fiscal accountability and leadership
External: Non-Government	
3. Professional associations	Certify graduates' credentials for entry into specific fields of employment
4. Program advisory committees	Composed of employers (largely), these committees review and recommend to the Board of Governors changes to programs to meet current standards
5. Ontario College Student Engagement Survey	Measures those attributes of a college that create a positive learning environment.
External: Government	
6. Key Performance Indicators	Employer satisfaction, graduate satisfaction and employment rates provide data for funding. Student satisfaction and graduation rates are also measured but are not part of the funding.
7. Multi-year agreements/strategic mandate agreements	Three year moving reports track how universities are meeting provincially set goals. New SMA tied to provincial philosophy of "institutional differentiation"

Community colleges have occupied a place in Ontario's education system for less than 50 years and have been joined, more recently, by the polytechnics. When colleges were established, the background to the enabling legislation made clear their purpose: post-secondary education and training opportunities that would lead directly to skilled and professional employment. In recent years, the mandate has changed and the value of colleges is perhaps more appropriately reflected in the following, taken from Colleges Ontario: "Colleges will lead educational innovations and advance public policy reforms to build the advanced workforce required to support new economic investments, rewarding careers and strong communities throughout Ontario" (Colleges Ontario 2015, 4).

The KPI measures for colleges do not relate directly to this mission and are similar in purpose to the university KPIs. For both sectors of higher education, these should not be labelled measures of performance; they are measures of accountability where the standard of accountability is being set by the government and more closely aligned with financial objectives.

Recommendations: Ontario

Given the billions of dollars allocated to higher education in Ontario, comprehensive accountability for those outlays is clearly required. There exist a vast array of audits and reports that provide detailed explanations of how each institution spends public dollars. Combined with the government's requirement for a strong governance system in post-secondary institutions, accountability is provided, at least in part.

The expansion of oversight by the provincial government whereby universities and colleges become agents of government, some critics argue, will stifle the enormous creativity and imagination that has marked the growth and development of the post-secondary system in Ontario. These commentators maintain that, if the province wants the universities and colleges of Ontario to be world class, to be leaders in the development of critical thinkers and researchers that are considered the best in the world, there must be greater institutional autonomy.

As we have documented, colleges and universities do not need government to define quality in terms of metrics that, while measurable, offer little guidance as to academic performance. These approaches confuse accountability with performance and cost society millions of dollars annually. There are numerous checks and balances in higher education institutions that highlight performance and work alongside external, non-government forces that are constantly reinforcing the academies' goals for increased quality. If the Ontario government is serious about enhancing higher education performance, we believe it should be in a pan-Canadian framework as discussed below.

We believe the question of quality can be addressed more clearly if the following steps are taken:

- First, remove the link between KPIs (the metrics) and funding. KPIs are counter-productive for resource allocation and contribute little to encouraging higher quality institutional outcomes.
- Second, link metrics used by the province to learning and graduate outcomes, research quality, and financial accountability, as appropriate.
- Third, do not collect the data for the metrics annually. Universities (more so than colleges and polytechnics) are slow to respond to new initiatives and comparing one year to the next year is not of much use. Three-year reporting would make more sense and save millions of dollars.
- Fourth, the province should champion fundamental learning and research goals and enshrine them as the centrepiece of the SMAs.
- Fifth, place considerably more reliance on the certification process by professional organizations to measure quality.
- Sixth, the Higher Education Quality Council of Ontario should remain as arms-length as possible and be given the mandate to approve programs and changes in programs where there is no external certification. This would leave the important task of program review to the Ontario Universities Council on Quality Assurance. HEQCO should also be responsible for the development and administration of a system-wide test that measures the breadth and depth of achievement by students with respect to analytical skills, communication, critical thinking, and diversity of comprehension related to broad social issues. Such a test would be modified to address the different types of institutions and credentials in Ontario. HEQCO's recently released study, *Measuring Critical-thinking Skills of Postsecondary Students* (Finnie et al. 2018), is a step in this direction and should be encouraged.

Recommendations: Canada

Fixing the somewhat misleading approach to higher education performance evaluation in Ontario is critical, but reform needs to be extended to all of Canada's provinces and territories.

As discussed earlier, there are efficient and effective non-government approaches to assessing higher education performance that emphasize quality in learning, research output, and meeting the requirements of, or success in, a wide range of occupations and professions. Governments should rethink their use of current indicators of higher education quality.

Where governments require institutions of higher learning to implement, on their behalf, activities as part of an overall social agenda, there must be high standards of accountability that go beyond annual reports of auditors general. For example, if there is a mandate for an institution to work with underachieving high school students or improve access to Indigenous students in rural areas, the funding metrics must be clear and indicate the outcomes that are expected from that institutions.

Universities and colleges should protest against new approaches that are expensive and over-taxing to the system yet provide little guidance for improving the quality of higher education. Governments, at the same time, must be careful not to pay too much attention to short-term surveys, for fear of having institutions manage strictly to the evaluation criteria (the institutional equivalent of teaching for the final exam). If universities are to be stalwarts of innovation, they need the freedom to innovate, experiment, fail, and restart – something that rigid evaluation systems discourage.

Notwithstanding the challenges, several recommendations can be brought forward for governments considering a system evaluation and assessment of universities and other post-secondary education systems. It is important, for example, to factor in the costs of evaluation from the beginning. Massive, multi-year data collection is expensive and time consuming. It can distort institutional practice and management.

Before governments venture down the virtuous path of evaluation, they should ensure that they can afford and will retain the funding for such formal and appropriate evaluation. Furthermore, governments should make sure that the information they request is truly required and will be used to support financial decisions. If, in the short and medium-terms, the evaluations are not tied to demonstrated outcomes, institutions will quickly find a way to minimize the importance of data collection and assessment.

To achieve these objectives, governments must work openly with institutions and with the public to determine the input and outcome measures. Universities, colleges, and institutes do not all work with the same kind of students or have comparable resources. They take on radically different educational and research mandates. Each institution should have metrics that reflect their unique situation while being roughly comparable to other universities within the province or country.

Governments must avoid metrics that are easily manipulated to produce additional income for the institution. Setting enrolment targets – the “bums in chairs” approach that has caused considerable difficulty across the country – encourages, if not requires, low enrolment institutions to take in weaker students. Establishing graduation targets encourages universities to focus on “retention,” which in some institutions has become code for lowering academic standards. Care must be taken in setting the standards for post-graduation employment. It can take several years for graduates to

find their career feet, particularly in the current employment environment. But it is equally important that career data account for additional, non-university-related training. For a university graduate who subsequently gets an electrician's ticket, the evaluation system should provide a determination of the degree to which the employment is tied to the university degree.

Evaluation is serious business. Done improperly, it will cost a great deal of money and produce few useful results. Evaluation can produce perverse outcomes, like faculty members focusing more on their number of publications than the quality of their research.

In a spirit of optimism and fully recognizing the political near-impossibility of some of what follows, we recommend that:

- The provincial, federal, and territorial governments should produce a single, standardized evaluation system for universities, with sufficient flexibility to allow each jurisdiction to manage its institutions according to regional priorities. The fragmentation of information about and analysis of Canadian universities harms all institutions, provinces, and territories.
- An appropriate evaluation metric should be developed that defines the ability of individual institutions to add value – defined in the broadest possible terms – to the students enrolled in the university, college, or institute. To achieve a common output goal, more resources and time are needed to educate a student from a disadvantaged family and weaker educational background than when the student comes from an advantaged family with a strong educational background.
- Top-flight monitoring of student career outcomes should be created by the government of Canada, regardless of the level of post-secondary education and the student's ability to complete a specific program. This system should, following the lead established by Ross Finnie of the Education Policy Research Initiative (EPRI) at the University of Ottawa, be integrated with employment, income, and training and educational data to enable career activities to be assessed over the long term. This information should, in the model adopted by EPRI, be publicly available and interactive to allow parents, students, and employers to better understand the effectiveness of Canadian post-secondary institutions.
- An institutional monitoring system should be established by the government of Canada that can answer the (hypothetical) question: What exactly was achieved by awarding university X \$100 million to develop new approaches to carbon sequestering (or any comparable commercialization project)? Governments and the Canadian public need to know if the country's investments in basic and applied research are bearing fruit – and they need to know which institutions are best at converting research funding into businesses and jobs.
- Metrics should be developed so the federal, provincial, and territorial governments can determine the value of university, college, and institute research and teaching (and the latter is equally important) on commercialization and economic development. The current system focuses primarily on inputs (like research grants) and proxies for outputs (such as patents or number of people trained). A more robust and innovative tracking system is required to determine the flow-through impact of investment in research and commercialization efforts to ascertain the economic impact.
- Similarly, measures should be developed that focus on broader societal impacts – identifying and quantifying the social, cultural, political and related effectiveness of government investments in social science and humanities research. This measurement system must go beyond such standard evaluative techniques as publication citations and research grants to look at the translation of this research into public action, community engagement, changes

in values and perception and other such elements. University, college and institute faculty members produce many non-scholarly outputs that have been transformative of society and that have produced constructive and important changes. The country needs to recognize this work and, ideally, provide mechanisms for reporting and analyzing the impact of these contributions.

- Evaluation systems must recognize the sharp differentiation in purpose, mandate, and environment between the country's various universities, polytechnics, and colleges. The current differentiation – colleges, universities, and polytechnics, for profit and not for profit, etc. – do not do justice to the realities of various institutions and their settings. Graduates from an institution in the Greater Toronto Area, Alberta, or British Columbia have much easier transitions to the workplace than those from Prince Edward Island or Newfoundland and Labrador. Individual institutions, consortia of institutions, or governments should consider an evaluation process that recognizes such sharp differences. The new categories, separate for student outcomes, teaching, research, and applied research, might include the following:
 - a. Research
 - i. Academic research and graduate intensive institutions;
 - ii. Applied research institutions;
 - iii. Collaborative research institutions.
 - b. Targeted Student Populations
 - i. Value-added institutions (those admitting students with less of an academic background and operating in an open-access format);
 - ii. Academically elite institutions
 - c. Specialized Programming Institutions
 - i. Career-oriented institutions;
 - ii. Creative institutions;
 - iii. Culturally-focused institutions (i.e., those emphasizing Indigenous students and Indigenous programming);
 - d. Organizational Structure and Delivery Systems:
 - i. Predominantly distance education institutions;
 - ii. Distributed or multi-campus institutions
 - iii. Residential institutions
 - iv. Urban institutions

Conclusion

Universities, colleges, and polytechnics have good reasons to be concerned about accountability processes. First, the data collection and analysis processes can be complicated and expensive. Second, the analytical processes can accelerate government intrusion into the work and operations of post-secondary institutions, eroding autonomy and imposing broader societal expectations on colleges and universities.

Institutions also have reasons to engage fulsomely with the new evaluation procedures. Universities, polytechnics, and colleges have a great deal about which they can be justly proud. Canadian institutions punch above their weight internationally and contribute substantially to the well-being of communities, regions, provinces, territories, and the country at large. If the data collection is sensitive to institutional mandates and circumstances – open access institutions will not have the same graduation rates as highly selective, professionally oriented campuses – the system will have a more accurate, comprehensive, and useful portrait of both individual colleges and universities and the system as a whole.

Post-secondary institutions should pause, however, to consider the forces behind the multi-national drive for greater accountability. The demands have emerged because of the gap between public expectations about colleges, polytechnics, and universities, and what students, parents, governments, and society at large have experienced from the system. Over the last 30 years, governments have invested massively in universities, colleges, and institutes, believing that the education and training of young adults was crucial for national competitive and personal advancement and that basic and applied research would fuel the innovation economy. The results have been mixed, which has been disappointing for parents and students who do not see other obvious alternatives and to governments who have gambled heavily on building a new economy.

“ It falls to the institutions to provide the evidence that universities, colleges, and polytechnics are providing full value – or more – and that outcomes are close to expectations.

It falls to the institutions to provide the evidence that universities, colleges, and polytechnics are providing full value – or more – and that outcomes are close to expectations. That governments are asking for greater transparency and more public reporting indicates that the level of confidence is lower than the institutions would like. Quality assurance has also become a mantra across government, associated with the global accountability movement and motivated by a general suspicion of governments, politicians and, to a certain degree, post-secondary institutions.

Ideally, the quality assurance systems adopted in Ontario and across Canada will reassure government officials, provide better guidance for students and parents, and engage institutions in continuing to undertake evidence-based evaluative processes designed to improve the quality of service to students, research outcomes, and regional impact. In time, data collection and quality assurance will

be commonplace, information will be widely shared and easily available, and institutions will be assessed on the basis of their unique mandate and roles.

Convincing governments that colleges, institutes, and universities are good value should not be difficult. Adjusting to ongoing oversight and public scrutiny will, in all likelihood, be a greater challenge for institutions and for the system as a whole.

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Endnotes

- 1 The appointment process differs among universities but all institutions seek a broad representation of skills and backgrounds to ensure their governance is effective. Most universities in Ontario elect or appoint members representing students, employees, and alumni of the institution.
- 2 In the Ontario college system, the formal appointment of governors is made by the College Compensation and Appointments Council. However, four members of a board of 12 to 20 members are elected by students, faculty, support staff, and administration, while the remainder are selected by the individual college and submitted to the council for approval. The council provides a 29-page guideline for the selection and nomination of board members (Ontario, Ministry of Training, Colleges and Universities 2003/2011).
- 3 Faculty in Ontario community colleges are governed by a single collective agreement between the colleges and the Ontario Public Sector Employees Union [OPSEU]. The section on salary increments in the collective agreement simply states that the annual one-step increment is based on experience and satisfactory performance once the probationary period has been completed. The performance of tenured faculty is monitored by a dean, director, or department head.
- 4 Two of the earlier criticisms of student evaluation of faculty are Seldin (1993) and Northwest Commission of Colleges and Universities (2001). Côté and Allahar (2007) have argued that biases can be reduced by standardizing course evaluations.
- 5 Analysis of the positive benefits of a college education indicates the social rate of return is 12.1 percent and the private return is 9 percent. See Christophersen and Robison (2004). See also Boothby and Drewes (2006).
- 6 Since these committees are required by legislation, they could be considered part of the provincial measures of performance. However, the province simply mandates the existence of these committees which operate independently under by laws of the individual college. In a sense, this is a system of mandated self-regulation. Ontario, Colleges of Applied Arts and Technology Act (2002).
- 7 The details of the structure of the committees are found in Ontario (2005). In addition to the external experts, program advisory committees usually include students, faculty, and one or more members of the academic administration.
- 8 Colleges are mandated by legislation to provide such plans. While universities are not mandated by legislation, they are expected, as part of the process whereby the provincial government makes transfer decisions, to provide accountability agreements. Feedback on these agreements is posted on university websites.
- 9 In developing these tests of performance and measures of accountability, the provincial government has lumped colleges and universities together with little reference to the distinct roles each sector plays in the in the achievement of personal and social goals.

- 10 Specifically, colleges will participate in the Ontario College Student Engagement Survey, formerly known as the Pan Canadian Survey of the Student Experience in Canadian Colleges and Institutions.
- 11 “Our overriding goals for a differentiated system are to build on and help focus the well-established strengths of institutions, enable them to operate together as complementary parts of a whole, and give students affordable access to the full continuum of vocational and academic educational opportunities that are required to prosper in our contemporary world” (Ontario 2013).
- 12 This indicator demonstrates one of the inequitable aspects of KPIs. Students who study science at a university without a medical school and transfer to the medical school before graduating are deemed to have not completed their degree in the time allowed.
- 13 Details of the operation of the KPI calculations were provided by the Post-secondary Finance and Information Branch of the Ministry of Training, Colleges and Universities.
- 14 The two KPIs that are not employed in the performance funding formula are the student satisfaction survey and the graduate rate calculation.

About the Authors



Douglas Auld is an adjunct professor in the Department of Economics and Finance at Guelph University. He has been involved in both the university and college system in Ontario since 1968. He chaired the University of Guelph Senate Committee on Academic Priorities. As president and chief executive officer of Loyalist College and Vice President of the college system Committee of Presidents, he was critical of the philosophy behind the province's Key Performance Indicators as a measure of higher education quality.



Kenneth S. Coates is MLI's Munk Senior Fellow in Aboriginal and Northern Canadian Issues. He is the Canada Research Chair in Regional Innovation in the Johnson-Shoyama Graduate School of Public Policy at the University of Saskatchewan. He has served at universities across Canada and at the University of Waikato (New Zealand), an institution known internationally for its work on Indigenous affairs. He has also worked as a consultant for Indigenous groups and governments in Canada, New Zealand, and Australia as well as for the United Nations, companies, and think tanks.

He has previously published on such topics as Arctic sovereignty, Aboriginal rights in the Maritimes, northern treaty and landclaims processes, regional economic development, and government strategies for working with Indigenous peoples in Canada. His book, *A Global History of Indigenous Peoples: Struggle and Survival*, offered a world history perspective on the issues facing Indigenous communities and governments. He was co-author of the Donner Prize winner for the best book on public policy in Canada, *Arctic Front: Defending Canada in the Far North*, and was short-listed for the same award for his earlier work, *The Marshall Decision and Aboriginal Rights in the Maritimes*.

Ken contributes regularly, through newspaper pieces and radio and television interviews, to contemporary discussions on northern, Indigenous, and technology-related issues.



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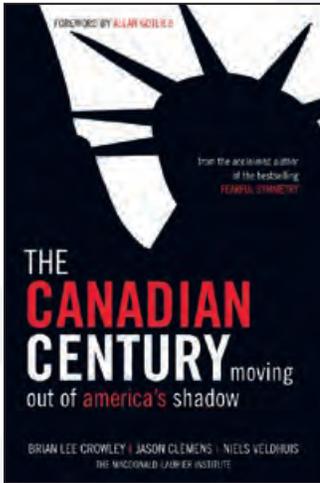
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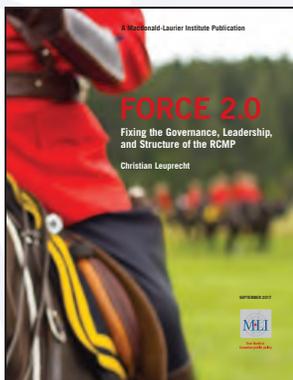
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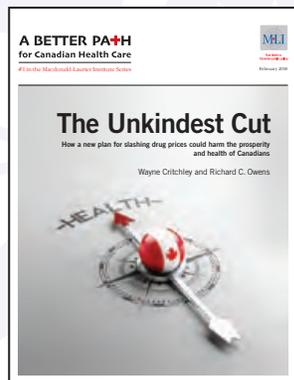
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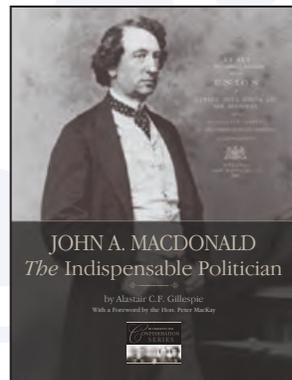
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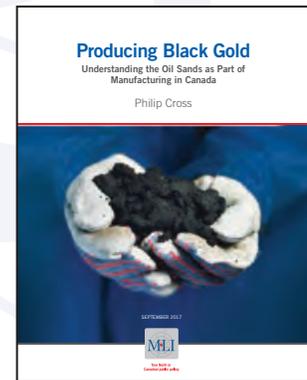
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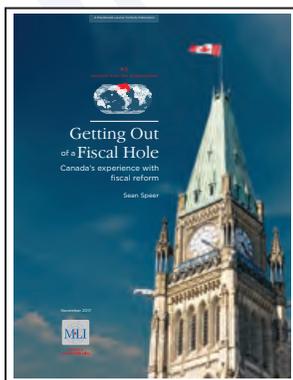
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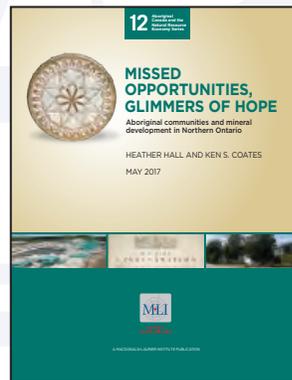
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