

Research and Reluctance in Improving Canadian Higher Education

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INTRODUCTION

Higher education paradoxes and outline of this essay

One of higher education's many paradoxes is that the sector values research but devotes little effort to scholarly inquiry about how to improve its performance. A second paradox is that the higher education sector values evidence but is reluctant to act when evidence calls for change in core practices.

This paper examines these two paradoxes as they apply to Canadian universities. We begin with a look at recent studies of the performance of Canadian higher education and then propose an improvement-oriented research agenda for the next decade. We believe that scholarly work on this agenda would generate compelling propositions for changing the way Canadian higher education is organized and how academic work is assigned and conducted. We introduce a thought experiment of imagining the titles of research chairs that could be created in Canada if each university devoted one percent of its operating budget to inquiry into improving higher education. We then examine some of the reasons why Canadian universities place such low priority on research into self-improvement in the face of mounting evidence that their performance is declining, and why Canadian universities appear so reluctant to act on research-based evidence about how their performance could be improved. We look at the general incentives and cultural issues in the academic world and at some specific Canadian issues associated with system homogeneity, attitudes toward differentiation, governance processes, and the roles of faculty and university associations. We end the essay with suggestions for encouraging higher education research and for overcoming the reluctance to act on its findings.

Proposals for improving Canadian higher education performance

Many recent studies suggest the quality of education in Canadian universities has been falling even when the resources per student have kept pace with general inflation.

Concern about the resources devoted to teaching in Canadian universities goes back at least two decades. Stuart Smith (1991) aimed to generate a national debate on the quality of teaching and learning with his *Commission of Inquiry on Canadian University Education* but the commission's report had relatively little impact on scholarship in this area (Halliwell, 2008, 11) and there was no follow through on Smith's recommendation for a fund for practical research into improving teaching. Pocklington and Tupper's book, *No Place to Learn* (2002), has been followed with works by Côté and Allahar (2007); Clark, Moran, Skolnik and Trick (2009); Côté and Allahar (2011); Coates and Morrison (2011); and Clark, Trick and Van Loon (2011). Although these studies document how class sizes have been increasing and student contact with full-time professors has been decreasing, higher education leaders in universities and government have, until very recently, been reluctant publicly to admit the increasingly obvious: that the quality of education our institutions are providing most students has been declining.

One of the first to state this conclusion in a relatively public forum was Robert Campbell, president of Mount Allison University, at the AUCC-CHERD workshop entitled "Transforming Canadian University Undergraduate Education," held in Halifax, Nova Scotia, on March 6-8, 2011. Campbell said "We all feel and know that the character of the undergraduate experience has deteriorated in our lifetimes, especially so in the last decades. And we know in our heart of hearts that this experience can and should be much better" (AUCC, 2011, p. 1). In October 2011, Harvey Weingarten, the president of the Higher Education Quality Council of Ontario (HEQCO) and former president of the University of Calgary, was more explicit, as suggested in the title of his lecture, "The Diminishing Quality of Ontario's Universities: Can the System be Fixed?"

So, what happens when revenues are not sufficient to cover incremental costs? You continue to take more students because that is the imperative and they are a source of revenue. Inflation is a reality. Compensation changes are a contractual obligation. So, the only place to compromise is on quality. In short, the sad but inevitable consequence of the way we now manage and fund public postsecondary education in Canada is an erosion of quality. (Weingarten 2011 n.p.)

Over the last five years there has been substantial research commissioned with the object of improving higher education in Ontario and many of the insights from this work have national application. These studies have been

described in the first three *Review and Research Plan* documents of the Higher Education Quality Council of Ontario (HEQCO, 2007, 2009, 2010) and in two monographs, *Academic Transformation* (Clark, Moran, Skolnik and Trick, 2009) and *Academic Reform* (Clark, Trick and Van Loon, 2011).

The HEQCO documents organize the research topics under the three pillars of the agency's mandate: accessibility, educational quality and accountability. The two monographs examined the forces transforming higher education and policy options for improving the quality and cost effectiveness of undergraduate education.

These studies suggest broad lines of reform. The authors propose that the first step is to acknowledge that there is a problem. They call on governments and universities to focus on student learning and commit to measuring and improving it. Provinces should project demand for postsecondary spaces – college, undergraduate, and graduate – over the next twenty years and develop affordable plans to meet this demand. Provinces that have not already done so could mandate the creation of a two-year academic credential offered at colleges, designed so that students who pass with high marks can go directly into third-year university. Where enrolment is projected to grow, provinces should create teaching-oriented undergraduate universities, rather than relying on the high-cost model of research universities where faculty are expected to do as much research as teaching. Universities could redesign and make more attractive the 3-year bachelor's degree, which is becoming the standard across Europe.

The reformers propose that provinces should change their funding formulas to fund university teaching and research separately so that governments wishing, for example, to generate 20 percent more teaching could do so without paying for 20 percent more scholarly publications. They suggest that provincial funding of the costs of research could be linked to performance measures such as the number of publications and citations, and success with federal granting councils. Provinces could provide targeted funding for initiatives that Canadian universities associate with better teaching and learning. And provinces could follow the lead of Australia and the UK in collecting and publishing better information on the use of full- and part-time faculty, student course satisfaction, and student success in finding employment that makes use of their education. Governments could encourage all institutions to conduct, as some American universities are starting to do, standardized tests of what students actually learn during their undergraduate years. The Government of Canada could support these efforts by maintaining a rigorously merit-based system of research grants and by fully funding the costs of federally supported research so that universities

do not have to pay for research out of their teaching budgets (Clark, Moran, Skolnik and Trick, 2009; Clark, Trick and Van Loon, 2011).

The fiscal crunch

Policy reforms of this magnitude don't usually happen in the absence of an overwhelming need to change. This is especially true in the post-secondary education sector with its ancient traditions and reverence for the ideal of institutional autonomy. It is likely that reforms in Canadian higher education, a sector that has enjoyed a long period of budget growth, will in the next 10-20 years be driven mostly by fiscal necessity in the face of continual pressure to make public spending more productive. A look at the underlying numbers suggests that over the next two decades, Canadian governments will face pressures to reduce spending comparable to those in the early 1990s. The 2011 *Restoring Public Finances* report of the Organization for European Cooperation and Development (OECD) projects the sum of expenditure reductions and revenue increases needed for national and state-level governments combined, as a percentage of GDP, to reduce gross general government debt to 60 percent of GDP by 2025. For Canada, the number is 4.5 percent. While this is lower than in the UK, where the number is close to 12 percent, and the US, where it is over 14 percent, the target is still demanding because, over the same 15-year period, Canada will have to find another 2.5 percent of GDP to deal with age-related spending on health and pensions, for a total adjustment of about 7 percent of GDP (OECD, 2011; IMF, 2011).

The last major period of fiscal consolidation in Canada, from 1983 to 1997, produced a change of 10 percent of GDP in revenues minus expenditures (IMF, 2010, 62). But in the coming period Canada's economic growth is unlikely to match that of the 1990s when the world economy was growing rapidly, and interest rates were falling. It will be harder to reduce the deficit-to-GDP ratio when growth in other countries is constrained by fiscal consolidation and interest rates begin to rise. These pressures are already being felt in the American public higher education system where state expenditures on higher education, in 2011-12 are 7.6 percent lower than the previous year and 3.8 percent lower than they were five years earlier, even without accounting for inflation. In some states with historically strong public university systems the declines over the five-year

period were dramatic (e.g., California, 12.5 percent; Michigan, 19.3 percent; Ohio, 8.8 percent).¹

AN IMPROVEMENT-ORIENTED RESEARCH AGENDA

This brief look at the broad lines of potential higher education reforms illustrates how contestable are the policy conclusions that can be drawn from what appear to be relatively incontestable facts, and suggests how valuable it would be to have ongoing Canada-specific research to help refine the theory, assumptions and evidence to support improvement initiatives. This section sets out an improvement-oriented research agenda for the next decade, with topics nested into three broad categories of quality, accessibility, and bringing about change.

Research topics on quality

Two issues have framed much of the international research in higher education in the last two decades: 1) what students are learning in their higher education programs; and 2) what can they do with this knowledge. There is a clear sequence in how the research has advanced, although understandably there is considerable overlap among the steps.

The first step is to identify and articulate expected learning outcomes and competencies. At the credential level, these statements take the form of qualification frameworks. These frameworks with associated quality assurance processes are now common in Europe, Canada, the US, and other OECD countries. The Tuning exercise (Wagenaar, 2012) is an attempt to develop comparable statements at the program or discipline level. Tuning has spread widely from its European roots to involve nearly 150 universities in more than 30 countries. To date, Canada's involvement in Tuning is limited to a pilot project currently underway in Ontario led by HEQCO.

There are a number of initiatives that would bring Canada to the forefront of this research:

- A survey and evaluation of qualification frameworks and quality assurance processes among provinces. Is there a "best" model or will

¹ These figures are from the data compiled and published by Illinois State University's Center for the Study of Education Policy in cooperation with the State Higher Education Executive Officers (SHEEO) on January 23, 2012. At <http://grapevine.illinoisstate.edu/tables/index.htm> (accessed 23 January 2012).

frameworks and processes necessarily reflect disparate provincial economics and PSE systems?

- A survey and evaluation of how these frameworks and processes have been integrated into degree and program development at Canadian colleges and universities. Is there a “best” model or will adoption patterns necessarily reflect disparate provincial PSE systems? As part of this exercise, surveys could be conducted of senior administrators and grass roots faculty along the lines of those conducted by the National Institute for Learning Outcomes Assessment (Kinzie, 2012).
- Depending on the results of the HEQCO pilot in Ontario, conduct more Tuning exercises. These might usefully be coordinated by the U15 group (the recently created group of 15 research-intensive Canadian universities).

The second step in the quality research is to determine the extent to which expected outcomes and competencies are being achieved. Measurement is sought for two reasons: accountability and improvement. As Jillian Kinzie notes in a forthcoming paper (Kinzie, 2012), these motives have very different implications for how measurement is carried out and how the results are used.

Research on measuring learning outcomes is still very much a work in progress. There are two approaches: indirect and direct measures. The National Survey of Student Engagement (NSSE) is the most prominent indirect approach. NSSE is widely used in the US and Canada and is spreading outside North America.

To date in Canada, most NSSE research has been conducted in-house, for internal academic planning purposes, and is not publicly available. The exceptions are four HEQCO-supported projects (Conway, 2010; Conway, Zhao and Montgomery, 2011; Conway and Zhao, 2012; Mancuso, Desmarais, Parkinson and Pettigrew, 2010). These exploratory studies were sufficiently instructive to warrant further NSSE research:

- A new and expanded NSSE national project, building on the initial HEQCO-supported initiative. This project would include more institutions with more attention to sample sizes and more specific research questions.
- More projects testing the ability of NSSE and the Classroom Survey of Student Engagement (CLASSE) to evaluate the effectiveness of program and course-level interventions designed to improve learning effectiveness.

There are a number of direct measures of learning outcomes, of which the Collegiate Learning Assessment (CLA) is the most prominent (Benjamin, 2008). The CLA tests a student's ability to apply generic skills in simulated real life exercises. The measure is value added: the difference between performance at the beginning and the end of a credential or program. The CLA can track individual students over time (longitudinal) or compare first and final year students (cross sectional).

The Assessment of Higher Education Learning Outcomes (AHELO) is a major international effort to develop measures of learning that can be used to compare learning outcomes in countries with different languages and cultures (Lalancette, 2012). AHELO is developing and piloting tests for generic skills and for specific skills in two disciplines – civil engineering and economics. Canada is participating in the civil engineering component through a project sponsored by the Ontario government and led by HEQCO.

There is considerable scope for additional research on direct measures of learning outcomes:

- Exploring the power of CLA to measure learning outcomes. This would use more pilots, building on the Ontario experiments and the proposed U15 project.
- Exploring the merits of designing a version of the CLA specific to Canada.
- Further involvement with AHELO based on what we learn from Ontario pilot.
- Comparing the explanatory power of NSSE with that of the CLA or other direct measures.

The third step is to identify and disseminate promising practices in teaching and learning. The scholarship of teaching and learning (SoTL) has advanced significantly in recent years and the research is receiving increasing attention by administrators and practitioners. This work is generally a bottom-up activity, with instructors introducing innovations in program and course design and course delivery and assessing the effectiveness. There is an obvious overlap here with the measurement issues discussed above.

The list of potential topics is large. A few examples:

- Innovative ways to teach large classes.
- Use of technology.
- Blended learning approaches.
- Use of teaching-stream professors.
- Evaluating student performance.

- Evaluating instructor performance.
- Link between teaching and research excellence.
- Finding ways to mobilize what we already know about effective teaching and learning but do not use commonly or effectively.

Another research area that falls generally under quality is the link between higher education attainment and labour market outcomes. Does the supply of graduates, in terms of both credentials and specialization, match the demand? One view is that we should expect an alignment:

- Labour markets signal excess demand or excess supply through relative changes in wages and employment rates.
- Entering students, or at least some of them, note these trends and choose programs of study accordingly.
- College and university officers, or at least some of them, adjust admissions to reflect application trends.

That is, the system adjusts as needed, albeit not without some lag.

Skeptics would argue that at least one of these tenets must be incorrect because we appear to have significant structural imbalances in the number of graduates and in their profiles, notably a shortage of skilled trades and an over-supply of humanities and social science graduates.

Research to date on this topic has tended to show no significant change in the higher education premium over time or in the relative returns by credential level of field of study. But this conclusion needs to be examined very thoroughly given the apparent widespread public conviction that the higher education system is not sufficiently aligned with current and emerging labour market needs. Some possible topics:

- Fully exploiting the National Graduate Survey (NGS) and Follow-up of Graduates (FOG) survey data.
- Using census data to look at the distribution of returns within cohorts; most work to date focuses on cohort averages.
- Case studies of government attempts to promote specific credentials or programs (e.g., computer science).
- Particular focus on labour market outcomes for holders of graduate degrees.
- Participation and completion rates for apprenticeship programs.

Research topics on accessibility

Canada shares with most other nations the goal to raise higher education and graduation rates. Given current patterns, this goal largely means increasing

these rates for traditionally under-represented groups. We know who the under-represented groups are thanks to extensive and innovative research using the Youth in Transition Survey (YITS) and other data (Finnie, 2009). Patterns are remarkably consistent among provinces, and indeed among countries.

There is certainly more to learn about the determinants of accessibility by demographic and socioeconomic group. With limited resources, the focus should be on projects that link secondary school, application centre, and college and university data sets to follow patterns and trends into and through higher education. These detailed data are already being generated as part of annual administrative activity, and they can be used to assess effects on participation of changes in key policy parameters such as tuition rates and student assistance policies.

The pressing accessibility research priority, however, should be to identify and evaluate promising policies to increase representation of traditionally under-represented groups. What has worked, and why? What has failed, and why?

- Lessons from the Canadian Millennium Scholarship Foundation experiments.
- Compare provincial experiences with respect to policies to encourage participation of specific groups.
- Examine international experiences with encouraging participation of under-represented groups.

A second priority in this area is to add to our understanding of graduation rates.

- Identifying significant differences among demographic and socioeconomic groups.
- Determinants of decisions to drop out (financial and non-financial) and the role of student support services.

A third area is tuition and other fees. This is well-tilled ground, and there is as much a consensus on the findings as one finds in social science research: tuition fees do not appear to be an important determinant of higher education participation and continuation decisions given the federal and provincial government financial assistance policies in place. Yet the demand for lower or even zero tuition persists, leading the Ontario government to reduce tuition fees significantly even for relatively high income families, and to protests and street violence in Quebec.

- Why does the empirical evidence on the role of tuition fees fail to convince policy makers and much of the public more generally? Is the

evidence wrong or incomplete? Or is it correct and complete but poorly presented. Does it fail to consider broader social issues?

A fourth topic in this area is student financial aid policies and student debt. Again, this is well-tilled ground, yet it continues to generate considerable heated discussion and debate. We need:

- A clear and comprehensive picture of student debt, not just simple averages.
- A comparative analysis of student financial assistance policies among provinces. Is there a best system?
- A survey of financial assistance policies in other nations, particularly those where repayment is linked to income upon graduation.

Research topics on bringing about change

Research on quality or accessibility, however productive, is obviously only useful if the recommendations are actually implemented. It is certainly safe to say that this aspect – bringing about change – is one of the least explored topics of higher education research in Canada.

What changes to the higher education system are we seeking? We suggest the following:

- Greater attention to learning quality.
- Increased participation and graduation rates of under-represented groups.
- But not at the expense of research capacity.
- While being affordable in a fiscally-tight environment.

Bringing about change has two components. Institutions need to be committed to reform, and individuals need to be committed to their institution's reform priorities. The former suggests a role for innovative government policy, while the latter puts the focus on internal policies and procedures.

System-level change

Two logical questions guide system-level research.

- What are the incentives (carrots and sticks) in the current funding and regulatory arrangements and how well do they align the system-wide goals noted above? In particular, what are the incentives for enhanced educational quality?
- How might these arrangements be altered so there is more incentive to bring about the desired changes?

This is a natural topic for comparative analysis. Funding and regulatory systems vary significantly among Canadian provinces, and considering those in

other nations as well adds to the variety. The task, as usual in comparative studies, is to identify promising practices that could be adopted and adapted in other jurisdictions.

Four features of higher education systems are worth serious comparative analysis:

- System design: mix of non-university and university institutions; differences in missions within each type (e.g., research-intensive vs. primarily undergraduate); and credit transfer within and among types.
- Performance measures: indicators of performance in teaching and research that can be used for purposes of accountability and resource allocation.
- Accountability frameworks: annual or multi-year reporting requirements to government and the public; scorecards.
- Funding formulae: providing sustainable and predictable funding and/or tied to performance.

Institution-level change

There is relatively little public research on how higher education institutions operate, yet this information is essential for structuring policies for reform. Do decisions vary widely among units, as institutional autonomy might suggest, or is there a predictable pattern of behaviour? Some interesting issues:

- How do institutions develop strategic priorities? In particular, how closely do they attempt to align these with government priorities more generally? This could include case studies of specific policies, with and without financial incentives, to study responsiveness.
- How do institutions ensure that internal policies and procedures are aligned with these priorities?
- How do institutions allocate resources internally among faculties and departments and between teaching and research activity?
- What incentive systems do they use to promote excellence in teaching, research, and service?

With respect to enhancing learning quality specifically:

- Conduct case studies of institutions with missions for excellent undergraduate education such as UBC Okanagan Campus, the BC teaching universities, Mount Royal University, Grant MacEwan University, and the undergraduate institutions in the Maritimes. These would look at incentive structures, resource allocation mechanisms, and the pressure for mission creep.

- As already noted, further work on the link between teaching and research excellence.

COULD SUFFICIENT RESEARCH CAPACITY BE MOBILIZED?

The paucity of higher education research centres in Canada relative to the UK, US and Australia

This is a big research agenda. In Canada, the number of faculty doing serious research into ways to improve university education is low relative to the task at hand – perhaps a dozen or so researchers out of the 42,000 full-time faculty² – and appears to be low relative to the number of faculty engaged in such research in Australian, British and American universities.

Let us look briefly at centres that specialize in higher education. In the UK, the *Centre for Higher Education Research and Information* (CHERI) was operated by the Open University until mid-2011 and generated several publicly available reports every year and a steady stream of journal articles and book chapters. It created the web-searchable *Higher Education Empirical Research* (HEER) database which was transferred to the Quality Assurance Agency of Higher Education. In Australia, the University of Melbourne's *Centre for the Study of Higher Education* (CSHE) is one of the longest established centres of its kind in the world. The *Griffith Institute for Higher Education* in Brisbane is both the Griffith University's academic development unit and a centre for research on teaching and learning. The web sites of the directors of these two institutions, Richard James and Kerri-Lee Krause (who collaborate on many projects) provide a good deal of useful material on teaching improvement and measurement.

In the United States, Berkeley's *Center for Studies in Higher Education* (CSHE), established in 1956 to study systems, institutions, and processes of higher education, has among its many resources, a marvellous *Research and Occasional Papers Series* with all of its material publically downloadable. Boston College's *Center for International Higher Education* (CIHE), directed by Philip Altbach, a prominent writer on international trends in higher education, publishes the quarterly *International Higher Education* and maintains a data base of international publications on higher education. Other well established centres include: University of Southern California's *Center for Higher Education Policy Analysis*

² The first number is the authors' assessment; the second is from *Facts at a Glance*, AUCC (2011). At <http://www.aucc.ca/canadian-universities/facts-and-stats/> accessed 8 January 2012.

(CHEPA); the Pennsylvania State University's *Center for the Study of Higher Education* (CSHE), publisher of the *Higher Education in Review*; the University of Michigan's *Center for the Study of Higher and Postsecondary Education* (CSHPE); and Indiana University's *Center for Postsecondary Research* (CPR) which hosts the National Survey of Student Engagement (NSSE). And there are many more centres associated with American universities that publish research on higher education.

There are only three long-standing research centres in Canadian universities that focus on higher education. The University of British Columbia's *Centre for Policy Studies in Higher Education and Training* was established in 1984 with a focus on the relationship between higher education and the economy. The University of Manitoba's *Centre for Higher Education Research and Development* was established in 1987, and is particularly focused on the professional development of faculty and administration in post-secondary education. The University of Toronto's *Higher Education Group* was founded in 1969 within the Ontario Institute for Studies in Education. Although many of the scholars associated with these centres are active researchers, their work is typically not published in working paper series or other publicly accessible materials on their centres' web sites as is the case in some of the UK, Australian and US university-based centres.

A perusal of recent publications by some of Australia's higher education scholars illustrates how dynamic the scholarship of higher education is in that country. A cursory comparison of institutional and personal web sites suggests that Australia does several times more applied higher education research than Canada to serve many fewer students. This is also reflected in the publication record of the government agencies. For example, Ontario has recently created HEQCO, an agency that has conducted an impressive research program for the last five years. But Australia has ACER, which has been operating since 1930 and has 41 current higher education research projects. The Australian Universities Quality Agency (AUQA) has frequent workshops and an active occasional paper series. The Higher Education section of the Department of Education, Employment and Workplace Relations produces a wealth of statistics in its annual reports on staff, students, and finances, and it has a substantial list of publications on higher education, much longer than can be found on any Canadian federal or provincial government site.

Higher education research generally does not require expensive laboratories and equipment. The main cost is in faculty salaries for research time. Canadian

governments and students are already paying faculty salaries for research time, so the issue is essentially one of academic research priorities.

A thought experiment: Imagine if Canadian universities committed one percent of revenues to research on improving higher education

Imagine if each university were to devote one percent of its operating revenues to research on how it could improve the product that it delivers.

This may sound like a radical idea but it is not the first time that spending one percent of operating revenues on efforts to improve university teaching and learning has been suggested. The Government of Ontario introduced the Ontario Universities Program for Instructional Development (OUPID) in the 1970s intended to “assist individual Faculty members in Ontario Universities and the Universities themselves in improving the effectiveness and efficiency of their instructional processes” (Elrick, 1990, 65). Funding was \$250,000 to \$500,000 per year from 1973-74 until it was wound up in June 1980. The review of the program conducted after its first two and a half years of operation (Main et al., 1975) suggested that funding be substantially increased. Main et al. recommended that “the Ministry of Colleges and Universities make available an annual sum of money which is additional to normal disbursements to universities and which is clearly earmarked for the purposes of instructional development in the universities” and that the sum “rise over a period of three years to a maximum of 1 percent of the total education expenditures in the universities” (56). Since total university spending in those days was close to a billion dollars annually, this was effectively a recommendation to increase OUPID’s budget to \$10 million per year.³ OUPID’s aims were not exactly the same as the research initiative proposed in this paper. They were narrower in that they focused on the instructional element of education improvement but they were also broader in that they included developmental and training elements that go beyond the research function.

In the present fiscal climate, one could imagine some of the one percent for education improvement research coming as net new revenue from external sources (government or private donors) but it is more realistic to imagine that most of the research money would come from internal reallocation of existing university expenditures. For example, the proposed one percent could be

³ In 1980 the total operating grant revenues of Ontario universities were \$788,525,000 in government operating grants and \$142,318,000 in tuition revenues. The sum of these two sources (\$930,843,000) constituted 94 percent of university operating revenues. (David Trick, personal communication, January 2012.)

financed by reallocating approximately two percent of annual operating grants to this purpose, or by employees foregoing a 1.3 percent compensation increase. Given current compensation levels⁴ and the number of qualified applicants for faculty positions,⁵ it is unlikely that this would affect the institutions' ability to attract and retain excellent faculty.

To facilitate this thought experiment, let us imagine that each university would create a number of Research Chairs, modeled on the Ontario Research Chairs in Public Policy.

Let us imagine that one million dollars per year is allocated for each of these Research Chairs, to cover full compensation and benefits for the chair, support staff and research assistants, the full contribution to indirect costs, and adequate funds for travel and conferences.⁶ How many such chairs would one percent of operating budgets support? Total revenues are approximately \$20 billion per year so this would imply 200 research chairs. For example, York University, with 2011 operating expenses of \$927 million, would commit to fund nine research chairs.

Using the topics outlined in the previous section, one could imagine that large universities, with revenues of over \$500 million, would each have a number of chairs with common fields of research, focused on the application to the

⁴ Canadian university faculty are very well compensated by international standards. A recent international survey of faculty salaries, using purchasing power parity found that among the 28 countries surveyed (including the US, UK, Germany, France and Australia) Canadian faculty were the highest paid at all faculty ranks (Altbach et al., 2012).

⁵ For example, *Academic Reform* examined the number of assistant professors from 1971 to 2009 compared with the Ontario population aged 25–44, which is the age range into which almost all assistant professors fall. The increase in supply of PhDs has vastly outstripped the increase in demand for new full-time professors. The number of assistant professorships has grown, but the number of people who meet the minimum academic qualifications for these positions has grown faster. The ratio of people in Ontario aged 25–64 who hold an earned doctorate to the total population in that age range almost doubled in the period 1986 to 2006. For every full-time professorship that exists at an Ontario university, there are five PhDs in the population. Every year, about 2,100 new PhDs graduate from Ontario universities, about 80 percent of whom will remain in Canada after graduation. Another 1,400 PhDs immigrate to Ontario each year. Meanwhile, only about 800 full-time university faculty reach the normal retirement age – a figure that will rise to about 1,000 per year a decade from now. The large stock of PhDs outside the university and the large inflow of new PhDs each year guarantee that there will be heavy competition for full-time university positions with any plausible level of faculty compensation.

⁶ This is a more generous funding model than the endowment-based model used for the Ontario Research Chairs in Public Policy which were funded by a one-time capital contribution of about \$2.5 million to the university.

particular university. For example, each university could have five chairs with names like:

- Research Chair in Academic Quality Assurance
- Research Chair in Learning and Assessment
- Research Chair in Teaching Technologies and Innovation
- Research Chair in Academic Curriculum and Standards
- Research Chair in Academic Training and Development

The incumbents in these positions would be internationally recognized experts in their fields and be particularly knowledgeable about the specific environment of their own university.

There are several fields where it would be useful to have at least one chair per province, although not necessarily at every university. These might include:

- Research Chair in Academic Freedom and Accountability
- Research Chair in Academic Management and Governance
- Research Chair in Academic Productivity
- Research Chair in Academic Performance Measurement
- Research Chair in Academic Compensation and Performance Management
- Research Chair in Higher Education System Design
- Research Chair in Higher Education Funding
- Research Chair in Student Fees and Financial Support

Many of these titles would seem alien in a Canadian university today. Why?

IMPEDIMENTS TO HIGHER EDUCATION RESEARCH AND REFORM

This section looks at the principal factors that impede the allocation of appropriate efforts to improvement-oriented research and to acting on the results of such research. They are: faculty incentives that privilege research over teaching, a university culture that encourages extreme specialization and a preference for theory over practice, the role of faculty associations, the design of governance systems, an institutional aversion to differentiation, and priorities of university associations.

Faculty incentives

The list of potential reforms that opened this essay illustrates the nature of the challenges to increasing faculty interest in research on education improvement and to acting on the findings of such research. At one level, the challenges can all be found in the title of Harold Lasswell's 1936 classic: *Politics:*

Who Gets What, When and How, especially if this is supplemented with who *Does* what, when and how.

Whether because of an inherent love of scholarly work or because of incentives placed upon them by their disciplines and institutions, it seems clear that most faculty feel compelled to devote more time to research – to conduct “scholarship at gunpoint” in Jacques Barzun’s memorable phrase⁷ on subjects generally unrelated to education improvement – and less time to teaching. The incentives, including the prestige differential between faculty teaching and research, have been discussed in dozens of articles and books such as those by Earnest Boyer (1990), Jacques Barzun (1991), Christopher Lucas (1996), Derek Bok (2005) and Louis Menand (2010).

It seems obvious that improvements in undergraduate education will require a greater priority to be placed on teaching at the system level. Clark, Trick and Van Loon (2011) are explicit in their objective of increasing the time that most faculty members devote to undergraduate education and of increasing the proportion of students and government resources going to institutions that focus on undergraduate education, without diminishing the ability to attract and retain the highest-performing university researchers.

Why don’t universities organize themselves so that the most productive researchers focus on research and other faculty focus on teaching when logic would suggest that such specialization could produce both more research and more teaching from the same population of faculty members?

As noted at the outset, the chief reason is the set of incentives that privileges research. American sociologists Richard Arum and Josipa Roksa (2011) suggest that many faculty believe that “one of the few remaining moral bases for academic life is a quasi-religious commitment to embracing research as a vocational calling.”

For many faculty, commitment to their own individual research programs is thus understood not as an act of self-aggrandizement or personal selfishness, but rather as a moral imperative that one must pursue and struggle to achieve regardless of institutional obstacles. (Arum and Roksa, 10)

⁷ Skolnik (2000) notes that a variety of motivations are at play. On the one hand, some faculty are likely driven by the coercive forces described by Barzun (1991) and elaborated by Lucas (1996, 189-99) who goes on to say of the effects of the pressure “the sadness of it all, critics claim, is that so many academics have allowed themselves to become part of a system that forces them to write when, as is painfully obvious, they have nothing of any great importance to say” (p. 84). On the other hand, as Skolnik notes (24), “Many academics have a genuine passion for writing and would try continue to find a way to keep writing regardless of changes in the academic reward structure.”

University culture: specialization and a preference for theory over practice

There are clearly strong incentives for faculty to focus on research and scholarship over teaching. But what kinds of research and scholarship? Might one expect that research on practical ways to improve the quality and cost-effectiveness of higher education would emerge as an important field of inquiry? Unfortunately, the answer is no because of two strong elements of academic culture: the pressure to specialize in narrow subdisciplines, and the preference to focus on theoretical and conceptual questions rather than practical solutions.

Louis Menand (2010), a professor of English at Harvard University, has illustrated in his compact book, *The Marketplace of Ideas: Reform and Resistance in the American University*, that almost all disciplines have become more specialized and more theoretical. The work of faculty is becoming increasingly removed from the practical problems in which citizens and government are immersed. Faculty see a higher academic payoff in making a small non-jurisdiction-specific theoretical advance than in applying established precepts of the discipline to a specific policy in a particular place. One hears Canadian economists in their 30s and 40s say that they have been advised by colleagues to “leave that policy stuff” until they get older so they can devote their most productive years to getting articles published in the discipline’s most respected international journals.

A similar tendency seems to be apparent in the field of education studies. A review of titles in *The Canadian Journal of Higher Education* suggests that many Canadian higher education scholars are more comfortable writing theoretical critiques on topics such as “The Scholarship of Teaching and Learning and the Neo-Liberalization of Higher Education” (Servage, 2009) than they are conducting empirical studies in Canadian universities aimed at improving learning outcomes.

Indeed, throughout the North American academy, there is no shortage of professors ready to apply theoretical constructs to critiquing proposals for improving teaching practice. A revealing example is the recent paper in the new *Journal of Academic Integrity* in response to a thoughtful article by Stanley Katz, president emeritus of the American Council of Learned Societies, on the role that faculty members should play in assessing learning outcomes. Katz wrote:

Why should faculty members support efforts on their campuses to assess student learning outcomes? ... Most often, legislators and bureaucrats bluster and then do little to implement assessment strategies, while the universities dodge and weave in response to perceived threats, and then do little or nothing to carry out their boasts that they are fully capable of self-evaluation... Student learning outcome assessment is a particularly delicate area, however, since it constitutes an intersection between individual faculty prerogative (the right to evaluate one’s own students) and the institutional interest in promoting learning across the curriculum

and over the span of students' college attendance. ... This faculty attitude probably has to change if we are to take seriously the emerging conception of institutional responsibility for overall student learning outcomes. ... Assessment instruments such as NSSE and the CLA have attracted wide interest because they attempt to evaluate the entirety of students' collegiate learning. Is there any reason why the professoriate should be suspicious of (or opposed to) this new mode of evaluation?... I can well imagine university teachers who oppose even formative assessment on the grounds that no one should be able to tell them how to teach, but we have all submitted to student course evaluations for many years, no matter how dismissive we may be of the current forms of that technology. It is hard to imagine a principled objection to careful evaluation of learning outcomes or to thoughtful suggestions for improvement in pedagogical strategies. (Katz, 2010, n.p.)

John Champagne (2011) responded to Katz:

It is highly ironic that writers who would pose critical thinking as the outcome of education cannot seem to think critically about the relationship between power and knowledge, a relationship that critical theorists have been interrogating since at least the end of the Second World War. The critique of instrumental reason; the insight that "there is never interpretation, understanding, and then knowledge where there is no interest" (Said 1997, 165); the suggestion that there is something named the unconscious that might interrupt our best efforts to produce knowledge of the social world in particular; the realization that any mode of cultural explanation necessarily silences alternative explanations, and that it is crucial to contemplate the itinerary of this silencing (Pierre Macherey, cited in Spivak 1990, 32); the proposition that truth, knowledge, and power are intertwined in ways we have an ethical obligation to try and understand... (Foucault 1990)

The preference for specialization over interdisciplinarity and for theoretical critique over practical empiricism adds to the challenge of mounting a research agenda directed at improving higher education in Canada.

The role of faculty associations

Given that one of the roles of faculty associations is to advance the profession,⁸ one might expect Canadian faculty associations to be strong proponents of research in the matter of improving the quality and cost-effectiveness of higher education. The active support of faculty associations for such research would be valuable because on most Canadian campuses, faculty associations are very influential because faculty have a more significant role in managing the production activities of their enterprise than do unionized employees in most other settings.

⁸ The Constitution of the Canadian Association of University Teachers states that the purpose of the association is "to promote the interests of academic staff, including but not limited to professors, professional librarians and researchers, to advance the standards of their professions, and to seek to improve the quality of post-secondary education in Canada."

Harry Arthurs, former President of York University and an authority on Canadian labour law, has noted that although faculty unions and university administrations are similar to other unions and employers in some ways, they are also different in certain important respects. Because the professoriate has actual as well as formal control over some or all aspects of important decisions (recruitment, hiring, tenure, promotion, curriculum, research priorities, pedagogy, etc.) they control many features of the “productive process” in ways which other workers do not. Because the professoriate has a voice (and sometimes a veto) in the appointment of senior university administrators, they have the ability to influence management values and perceptions in ways which are denied to other workers; this influence is enhanced to the extent that academic administrators continue to participate in or identify with the social and intellectual life of the professoriate – to which they formally and symbolically belong and sometimes actually return (Arthurs, personal communication, 2011).

Despite faculty associations’ commitment to teaching excellence, they have not to date been major sources of ideas for improving university education. Typically they have called for additional government funding to support the hiring of more full-time faculty whose teaching and research responsibilities would be based on the current model. One should nevertheless note the potential for new ideas and vigorous discussion within the labour movement about how to defend members’ interest while at the same time maintaining the financial viability of the organizations for which they work. In the North American auto sector, for example, union concerns for the long-term viability of employers inspired union-led proposals for improving productivity and quality in the face of increased competition from overseas automakers in the during the 1970s and 1980s. The prospect of exogenously-driven policy changes to address escalating per-student costs and concerns about quality could lead to similar proposals from faculty associations. A recent proposal from the vice-president of the Ontario Confederation of University Faculty Associations (OCUFA) to establish principles for teaching-stream appointments may be a promising sign.⁹

University governance

Governance in higher education refers to the formal structures through which stakeholders interact with each other and exert influence on the policies

⁹ See <http://ocufa.on.ca/2011/any-discussion-of-expanding-teaching-stream-faculty-should-adhere-to-certain-principles-says-ocufa%E2%80%99s-lawson/> (accessed 22 January 2012).

and practices of universities and colleges.¹⁰ Historically, a major focus of interest in governance has been on the problem of balancing the interests and views of internal stakeholders, particularly faculty, with those of external stakeholders, especially those deemed to represent the interests of the community or state.

For the purposes of this essay, the question is whether governance structures and practices in most Canadian universities constitute impediments to the allocation of appropriate resources to research on education improvement and to action on the findings of such research. If it would be in the public interest for more such research to be conducted and acted upon, another way of expressing the question is: Who speaks for the public interest within the university governance system?

Governance systems have been designed to provide universities with considerable autonomy from government. This autonomy is desirable for several reasons: a university's activities are presumed to be only partly in the service of explicit societal objectives, although increasingly so in recent years; it is widely thought that their work may not be as productive if conducted under supervision of government; some of their roles, such as social criticism and innovative thinking, require independence from government; the risk or appearance of intrusion of political influence in some of the kinds of decisions made by universities, for example, admissions in professional programs, is unseemly in a democracy; and it has been argued that institutional autonomy is important for protecting academic freedom, though whether the former is a necessity for the latter is quite contentious.

The most common governance model, which dates back to the Sixteenth Century in Europe (Kerr and Gade, 1989), is the bicameral structure in which the ultimate responsibility for managing the affairs of the institution is divided between two chambers, typically referred to as a governing board and an academic senate. Of course, balancing the interests and views of different participants within each of these broad categories is often at issue as well. Thus, in the process of the governance reform at the University of Toronto that was spurred by campus unrest in the 1960s, one of the focal points of controversy was how to fine tune the precise numbers of representatives from different internal constituencies (Bissell, 1974). In regard to external members, a number of jurisdictions have issued guidelines or requirements for the representation of different social groups.

¹⁰ We are indebted to Michael Skolnik for assistance with this section, which draws heavily from material that he provided for an internal paper that Clark and Skolnik jointly produced at the request of a university board.

It is widely accepted that within universities, academic staff should have the primary responsibility for decisions concerning academic matters, such as admission and graduation requirements, curriculum, and academic standards. The rationale for assigning this responsibility to academics is that they, rather than lay persons from the community, have the requisite expertise in academic matters, they are closest to the academic action, and they have a particular stake in the academic reputation of the institution that is determined at least in part by the academic policies of the institution. On the other hand, most if not all jurisdictions have taken the view that the financial management and larger administrative control of the institution should be the responsibility of a body that contains a majority of external members, i.e., the governing board.

The advent of faculty collective bargaining has added a third nexus: faculty associations representing the interests of those who do the teaching and research. Much has been written about the uneasy relationship between the three institutions. Canada faculty associations have been very effective in advancing their members' interests but they have been very conservative forces on matters related to the organization and delivery of academic work. Similarly, Birnbaum (1989, 235) notes that senates have traditionally been a force for organizational conservatism. They have generally been effective in maintaining traditional disciplinary standards and resisting changes that might undermine academic freedom and established operating procedures.

This leaves the governing board as the body where the public interest in conducting and acting on improvement-focused research is expected to be voiced. So, have university boards been effective in exercising their fiduciary responsibilities to ensure their institutions' financial sustainability and to represent the public interest in maximizing the amount of teaching and research that is produced for each taxpayer and student dollar? Given that that many universities are not operating on a financially sustainable basis (Clark, Trick and Van Loon, 2011, 16-17), given the acknowledged decline in teaching quality, and given the widespread and easily understood inefficiencies from the reluctance capture economies of specialization, it would be easy to conclude that university boards have been unwilling or unable to act unambiguously in the public interest.

Institutional aversion to differentiation

At the institutional level, the resistance to reform – and to research that might lead to reform proposals – is largely driven by concerns over status. Status-seeking behaviours by institutions leads to an almost universal propensity

for mission creep and to political resistance to policies that encourage institutional differentiation. Clark and Eisen (2010) observe that, although the application of division of labour, specialization, and economies of scale are among the cornerstones of economic theory, policies based on them are resisted by those who do not wish to see differential government treatment of individuals or institutions. When Canadians think about the values that should animate the actions of their governments, equality is among the first to come to mind. Equality leads to a preference for uniformity in the treatment of groups, institutions, and individuals in most areas of public management and reluctance to embrace policy options that call for explicit differentiation. It is usually easier to invoke Canada's egalitarian tradition and defend uniformity as an extension of that tradition than it is to take more efficient and equitable policy measures that would require data, evidence, imagination, and willingness to defend criteria that lead to explicitly differential treatment.

There are many areas of the university system where there are clearly benefits to be captured by more concentration and specialization. This occurs in areas such as research and graduate education, where the average cost falls as scale increases, where efficiencies can be gained through specialization, and where benefits can be obtained from working in proximity to those performing related activities. Virtually all countries face similar challenges, and most are responding by permitting, even encouraging, greater differentiation. Encouraging differentiation in a public system requires that government deal with the "essential problem of isomorphism" (where all universities aim to look alike) driven by "unbridled competition among academic institutions pursuing the same goals" (Altbach, Reisberg, and Rumbley, 2009, 19). Altbach et al. note that:

Academic staff often press the university to emphasize research as its key mission, knowing that a research orientation and productivity in this area promise the highest prestige and (often) the best salaries for academics. If the universities remain the sole decision makers, many more academic institutions would seek to improve their status by becoming research intensive. In most cases, this strategy does not serve the interests of academe in general nor is it widely achievable. Often, it takes governmental "steering" to keep the academic system diversified and institutions within the system serving larger national goals. (Altbach, Reisberg, and Rumbley, 2009, 18–19)

Lack of higher education research interest on the part of associations in Canada relative to the UK, US and Australia

The final factor we look at in regard to the reluctance to conduct or act on improvement-oriented research is the role of university associations. Relative to

their counterparts in Australia, the UK and the US, Canadian associations of higher education appear to devote relatively little attention to exploring ways to improve the quality and cost effectiveness of undergraduate education.

Universities Australia is the body that represents all 39 universities, and produces regular public submissions and reports, primarily directed at the national government. The *Group of Eight* represents the research intensive universities (Western Australia, Monash, Australian National, Adelaide, Melbourne, New South Wales, Queensland, Sydney). It produces one to two dozen substantial papers every year, many that address issues in addition to enhanced government funding that are pertinent to the quality of teaching and research.

The UK university system is highly differentiated and the constituent institutions have organized themselves into four non-overlapping groups. Some of them produce analytical work that does more than simply advocate for more public resources for their members. For example, the *1994 Group*, (the association of 19 of the largest universities not part of the self-selected Russell Group) has a policy group on the student experience that produces substantial papers such as the 2007 *Enhancing the Student Experience* report.

In the United States there are hundreds of regional and national associations of university administrators and functional experts. There are six so-called “presidential higher education associations.” The *American Council on Education* (ACE) which “represents presidents and chancellors of all types of U.S. accredited, degree-granting institutions: community colleges and four-year institutions, private and public universities, and nonprofit and for-profit colleges” has a Policy & Research Links section of its web site which provides an excellent list of resources including most of the journals, institutes and associations in the higher education field. The other five associations, with somewhat overlapping membership, represent the interests of different types of higher education institutions. Most members of all these associations – from Harvard University to Kalamazoo College – are also members of the *Association of American Colleges and Universities* (AAC&U), an association “dedicated to ensuring that the advantages of a liberal education are available to all students regardless of background, enrollment path, academic specialization, or intended career.” The AAC&U publishes four periodicals (*Liberal Education*, *Peer Review*, *On Campus with Women*, and *Diversity & Democracy*). One of its signature projects is Liberal Education and America’s Promise (LEAP), a national initiative that champions the importance of a twenty-first-century liberal education, that promotes essential learning outcomes, high impact educational practices,

authentic assessments and inclusive excellence. The AAC&U web site has voluminous resources on topics like curriculum development, assessment, and institutional and systemic change.

The titles of two monographs published AAC&U give a flavour of the seriousness of this research effort: *The LEAP Vision for Learning: Outcomes, Practices, Impact, and Employers' Views* (2011) and *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* (2008) by George D. Kuh. The whole Winter 2010 issue of *Peer Review* was devoted to the theme of "Engaging Departments: Assessing Student Learning." The American Council on Education, in conjunction with the Association for Institutional Research and the National Institute for Learning outcomes Assessment have developed the web site *Measuring Quality in Higher Education: An Inventory of Instruments, Tools and Resources* that provides links for resources: on Accountability; Accreditation; Assessment; Educational Evaluation, Testing and Measurement; Higher Education Benchmarking Data; and Search Engines and Resource Compendia.

The Australian, UK and particularly the American, associations have more useful and more plentiful public resources than their Canadian counterparts on the question of improving the quality and cost-effectiveness of undergraduate education.

ENCOURAGING RESEARCH AND OVERCOMING RELUCTANCE

The books *Academic Transformation* and *Academic Reform* contain numerous proposals for systemic change. This essay has suggested that good research, broadly communicated, can help. Here are four process suggestions for moving the research agenda forward.

A serious discussion between government and the academy

Provincial governments should make much more explicit their expectations of the post-secondary education sector and their projections of the resources that will be available from the sources they control: provincial grants and regulated tuition revenues. Where there is a clear gap between what is being produced with the resources and what is expected to be produced the government should initiate a serious discussion with institutional leaders, with input from associations representing students and faculty, about the nature of change required and how it will be conducted. The discussions should include how substantial institutional autonomy can be preserved in a more system-focused approach. Although one could not expect unanimity on all the details of a reform

program, it may be possible to reach a reasonable consensus on the areas where careful research would help improve the understanding of what should be done.

Strengthening the ability of university boards to represent the public interest in cost-effectiveness

It seems clear that governing boards of universities need to exercise stronger roles in bringing issues of productivity and cost-effectiveness to institutional decision-making. But how should this be done? In the long term, it will probably be necessary to re-think university governance structures – on the basis, of course, of solid research – and to pass provincial legislation to give stronger voice to those who represent the public interest. In the short term, efforts could be made by the government to ensure that board members are better briefed on their responsibilities, on the incentives and behaviours within the academy, and on instruments for improving quality and cost-effectiveness within their institutions. Ideally, several members of every board would become highly interested in how the results of higher education research can assist them in these duties.

Creating a HEQCO-like national institution

Canada does not have United States' impressive tradition of education research funding by private donors. In that country, major foundations such as Ford, Pew Charitable Trusts, and Carnegie have for decades funded research in higher education.

Following the windup of the Canadian Millennium Scholarship Foundation and the Canadian Council on Learning, HEQCO is far and away Canada's leading sponsor of research on higher education issues. The council and principal staff members were appointed in fiscal year 2006–07. The budget for 2010–11 was \$5 million. HEQCO conducts research in its three mandate areas of accessibility, educational quality and accountability. HEQCO has produced an impressive body of research in the last five years. Much of it is applicable to post-secondary education policy throughout Canada. A strong case could be made for creating some sort of national body to do such work with a broader geographical mandate. In his independent review of HEQCO, Lorne Whitehead suggests that other interested provinces could “create their own provincial versions of HEQCO's advisory role, and to collaborate with one another in supporting what might eventually be described as the “Canadian Higher Education Research Council” – presumably with networked branch offices in participating provinces” (Whitehead, 2011, 13).

Improving academic transparency in an on-line world

Recent developments in information and communications technology can have profound effects on the relationship between the academy and the public, and on the way research is used. For those who work in public institutions and whose scholarship is supported by public funds, making their scholarly work publicly available is encouraged by freedom of information legislation: in most Canadian provinces universities are obligated to respond to a request for information on university document collections and e-mail systems.

The internet is now the main source of information for people interested in what goes on in universities, particularly on the research conducted by faculty. It is possible to find almost any document that a faculty member has presented at a conference by Googling the professor's name and a rough description of the subject, because most conferences retain materials on a web site. Almost all university departments now have web sites that list the recent publications of faculty members and many departments encourage faculty members to post their full academic résumés. If they do, the full content comes up on a Google search (Clark, 2010).

The effort to make scholarship publicly available on the internet in a manner consistent with intellectual property laws will increasingly be seen to be part of every faculty member's service responsibilities to contribute to public knowledge. Such information will provide an excellent resource for students (and parents) in selecting universities and departments. Universities should embrace this by encouraging (and providing technical support for) every single faculty member to have a public web site with up-to-date descriptions of their teaching, research and service contributions.

Over time, it could be expected that more and more citizens would develop an interest in the topics that higher education researchers are pursuing and an interest in how the findings are being implemented by governments and academic leaders to improve the quality and cost-effectiveness of public university systems.

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