

The Senate of York University

Academic Policy, Planning and Research Committee

Memorandum

To: Faculty Council Chairs

From: David Leyton-Brown, Acting Chair, Academic Policy, Planning and Research Committee of Senate

George Comninel, Chair of Senate

Date: January 16, 2017

Subject: **Tracking Success through Indicators**

This communication requests responses from Faculty Councils by February 10, 2017.

We are writing on behalf of Senate's Academic Policy, Planning and Research Committee to invite your Faculty Council to participate in an important consultation concerning performance indicators, especially those related to scholarly, research and creative activities.¹

As the year begins, Ontario universities are gearing up for negotiations with the provincial government culminating with the signing of new Strategic Mandate Agreements. The *University Academic Plan 2015-2020*, approved by Senate in early 2016, anticipates the development of more performance-based funding based on a range of indicators. APPRC understands that some metrics emerging from the next SMA exercise will apply to the system as a whole while others will be university-specific.

Over the years, members of the York community have frequently expressed dissatisfaction with the limited array of metrics most frequently utilized because they do not fully or accurately capture York's strengths, or fairly represent the kind, quality and impact of our contributions. This moment brings an opportunity to expand and refine metrics in ways that will better serve York along with other universities.

Through its approval of the University Academic Plan, Senate has made commitments to

- significantly increase the number and proportion of reportable research outcomes [and activities] by our scholars and enhance the means through which we can measure and articulate the full range of our scholarly outcomes from our work and their impact; and to

¹Commonly employed indicators include research income (overall and per faculty member), publication and citations.

- collegially develop and confirm measures to be used for monitoring and reporting on our progress for all priorities taking advantage of repositories of best practice

APPRC is now in the process of engaging Senators in a discussion of research indicators. In doing we have signaled our intention to consult with colleagues throughout the University. With SMA negotiations in the offing, it is timely and beneficial to broaden the discussion now, and to seek the views of your Council on the following key questions:

How can York improve its tracking of progress and how can it use indicators to greatest advantage?

What specific indicators do you employ or should be employed to create the most inclusive possible set of indicators across the spectrum of scholarly, research and creative activities? Please provide concrete examples.

In making this request we want to emphasize that responses are intended to launch a sustained collegial dialogue as we work toward realizing UAP objectives and to complement rather than supplant other processes (such as consultations on the Plan for Intensification of Research) and to . In that light, we ask that you respond by **February 10, 2017**. APPRC would welcome input from the appropriate committee(s) and / or Council itself. Feel free to comment on other measures of academic achievement you think relevant.

Please submit your responses to Robert Everett of the University Secretariat (beverett@yorku.ca). You may also transmit questions for APPRC to him.

Thank you in advance for your assistance.

cc: Faculty Council Secretaries

University Academic Plan 2015-2020

<http://secretariat.info.yorku.ca/files/UAP-2015-2016-Final.pdf>

APPRC Report to Senate, November 2016 pp. 57-59

<http://secretariat.info.yorku.ca/files/Agenda-Package-20161124-FINAL.pdf>

Additional Context for Faculty Councils

The following communication was sent to Faculty Councils immediately following APPRC's meeting of January 19, 2017:

- in addition to the PIER referenced in the communication, you and your Council members may find it helpful to review Vice-President Haché's presentation to Councils during the PIER consultation process for illustrations of key indicators
- in addition to international collaboration, indicators might include publications in languages other than English or material published by foreign publications; it follows from this that your Councils may be help identify other ways in which the use of frequently used indicators or the addition of more inclusive indicators would provide a fuller, fairer picture of York research
- it would be helpful to know if there are journals that are not normally covered by research sources
- what aspects of your Faculty's scholarly, creative and research activities are not normally covered (for example, to curate perform, design, show and the like)?
- graduate students and post-doctoral fellows are also critical to York research, and there are a number of ways in which their contributions might be reflected -- are there indicators that are being missed such as publications, awards, major Tri-Council grants and honours, the number of graduate students, the collaborations they undertake and the like?
- do colleagues in Faculties conduct research that is distinctive or rarely undertaken elsewhere, or that may be under-valued; are there aspects of research in which York is cutting edge or clearly leading?
- are there ways in which research productivity has evolved over time in ways that are not properly understood?

MEMO

To: Chair, Academic Policy, Planning and Research Committee

From: Mark-David Hosale, Chair, Academic/Administrative Policy & Planning Committee, AMPD

Date: February 10 2017

Subject: Tracking Success through Indicators

Thank you for reaching out to the Faculties to hear about potential indicators of success that more fully reflect the professional activities and research outputs of our colleagues.

In addition to the conventional measures, i.e. peer review publications, citations, etc. by which research currently is evaluated; we have listed below examples of metrics for research by AMPD faculty members that currently may not be fully recognized/acknowledged:

The School of the Arts, Media, Performance and Design also wants to emphasize that across many of the indicators there is a hierarchy (for example, the range of status amongst performance venues and galleries); we would expect to be involved in conversations around the ranking of venues as there is a relevance of the venue to the researcher's work, i.e., size or location of a venue is not necessarily the optimal indicator of its professional status.

- Scholarly or creative work is recognized as innovative or groundbreaking in the field, and is published, performed or displayed in high quality venues, taking into account that there are disciplinary hierarchies of venues, galleries, theatres
- Performances or exhibitions of work such as, but not limited to: graphic design, juried competitions, installations, group or solo art exhibitions (which can be in a range of venues, whether art gallery, public site, or the web), key involvement in short theatrical/music/dance performance, short film or video. A major output such as a full-length theatrical work, large solo exhibition, long film/video, original composition or choreography taking into account that there are disciplinary hierarchies of venues, galleries, theatres

- Published or presented quality assured outputs such as, but not limited to: article in refereed journal, chapter in book, paper in conference proceedings, catalogue essay, film or media programming, exhibition or event curating, CD/DVD publication, screenings at film festivals.
- Coaching, i.e., assisting in the professional development of others – using professional expertise to coach others
- Organizing conferences and conference leadership
- Reviews of faculty work by others in discipline specific journals, E-zines, etc.
- Number of hits, unique visits to online published material sites
- Curatorial activities and curatorial leadership
- Being invited to present keynote addresses, performances, installations or to participate in exhibitions, conferences, screenings, etc. taking into account that there are disciplinary hierarchies
- Commissions and the process for commissions – works, performances, public art taking into account that there are disciplinary hierarchies
- research funding is pursued but not necessarily awarded (fundable but unfunded), where appropriate to the candidate's program of scholarly/creative research





To: Chair, Academic Policy, Planning, and Research Committee

From: Naomi Norquay, Chair, Faculty Council, Faculty of Education
Karen A. Krasny, Associate Professor, Faculty of Education and
Member APPRC

Date: February 16, 2017

FACULTY OF
EDUCATION

Subject: Tracking Success through Indicators, Faculty of Education Response

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736 5002

Following the request from APPRC for feedback on Tracking Success through Indicators, members of Faculty Council in the Faculty of Education discussed potential ideas for submission. Karen Krasny, who is both a member of APPRC and a faculty member in the Faculty of Education, facilitated the discussion. The following are considerations, concerns and suggestions, which were brought forward at our meeting held Friday, February, 10, 2017.

Considerations:

- We understand that this request is being made in response to the provincial government's proposed reliance on agreed upon indicators to assess performance with an aim toward: 1) Differentiating among post-secondary institutions and 2) Determining the possible reallocation of existing funding. In response, faculty focused discussion on *research excellence* and qualitative and quantitative measures that could be used to best demonstrate the *impact and influence* of our research and scholarly work.
- The language that is used when framing the process of determining the impact of research is of key importance. "Measurement" suggests something that is quantitative, but this type of assessment/evaluation can only tell part of a more complex story. Language such as "demonstrate" more accurately captures the scope and range of our research and can account for both qualitative and quantitative *indicators of influence*.
- Beyond conventional indicators of performance such as external funding, peer-reviewed indexed journal publications, citations, honorary degrees and distinctions, postdocs, external funds invested in hiring graduate students, etc., faculty members emphasized the importance of being able to account for the impact of our research through:
 - Its community partnerships and projects
 - Its influence in shaping policy and practice
 - Student engagement and training through our scholarly work and research.
 - Knowledge Mobilization (KM) events and activities

- Publications through practitioner journals; Conference presentations, workshops, and invited speaking engagements to professional communities of practice outside of the academy.

Suggestions for Performance Indicators:

- Two clear ideas emerged from our discussions that might serve to document research impact and achievement both qualitatively and quantitatively:
 - **Impact case study:** In the UK they are moving from reports on “outcomes” to “impact” by creating *Impact Case Studies*. Units choose particular cases to illustrate the broader scope of what is done. We can potentially qualitatively/quantitatively describe what is happening, in “microclimates” as indicators of larger data/contexts, or as examples of larger data.
 - **Infographic:** Mapping faculty research engagement/impact and student involvement geographically across the GTA, the province of Ontario, Canada and the world. An *infographic* could communicate type, scope, and duration through colour-coding and embedded graphs.

Advantages:

- An *impact case study* could document the longitudinal impact of our research and contributions on educational practice in schools, community and social agencies.
- Enhanced partnership engagement in “telling the story” through stakeholders statements of impact testifying to the scope of influence of the research and/or project impact.
- Focus on scope and variety, using “indicators of influence” not currently captured by conventional measures.
- Provide thick description and concrete examples to qualitatively account for how our research and scholarship has influenced particular groups/populations or trace its role in shaping federal or provincial policy
- Provide a more comprehensive profile of the scope and range of work of produced by faculty.
- Enhance data management: Provide for a more flexible and comprehensive university-wide indicator
- It was suggested that a course release each year could be granted to those who would write an impact case study to contribute to the Faculty’s documentation. This course would release the burden of administrators and individuals and provide an incentive to complete this task. If we build a system/cycle into the process of collecting this information, it has the potential to be more sustainable, and faculty members might be able to create publications out of the same content, too, solving two problems at once.

- Data management related to newly-implemented indicators could be created as a project for reliable grad students each year, who could be trained on the methods of data collection (under faculty supervision).
- Could coordinate with not-for-profit organizations which often use “logic models” to show the inputs required in order to create intended “impacts” (See <https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide>).
- Collecting qualitative data is helpful; having a standard set of questions or a template/graphic organizer to complete can also help to tell a compelling, succinct and understandable story to people from outside the Faculty and outside the university. We must be mindful of who is collecting the data and how.

Concerns:

- The Ontario government is still calling the proposed measurements “performance indicators” so we need to consider this language and its implied intent.
- Time and resources: Do we have time to create metrics and complete these reports? Collectively reporting on impact is labour intensive beyond the demands of carrying out rigorous qualitative, quantitative and theoretical research. Faculty expressed concern about the workload associated with the implementation of indicators of influence whether through impact case study, narratives, or infographs.

Glendon College's response to APPRC's request for faculty input regarding "Tracking Success through Indicators"

Preamble

This document is in response to York University APPRC's January 2017 request to Glendon Faculty Council to provide feedback on optimizing York University's performance in research productivity metrics. Glendon Faculty Council created an ad hoc committee to prepare this response, which was then circulated among Council members. In addition to this year's consultation, the ad hoc committee also consulted previous submissions from Glendon addressing this topic, including Glendon's PPC 2007 document written for a similar exercise, the January 2015 report in which Glendon's Associate Principal for Research and Graduate Studies provided input to inform PIER, and Glendon's response to the IIRP from November 2016.

We wish to begin by stressing two important considerations. First, we wish to underscore some challenges posed by Glendon's unique multilingual context. Many of us publish internationally and in multiple languages. We have a large cohort of scholars working on Francophone-oriented research not always visible to citation databases. In addition, there are fewer publishing outlets, granting agencies, and frequent translation requirements that prolong the research, writing, and publishing process in ways not comparable to the dominant North American Anglophone research model. Some of these issues are at play even within York University, such as the inability of the Major Awards Committee to review faculty projects in French, and the English-only submission requirements for research and teaching excellence awards (as the Glendon response to the IIRP feedback process discussed). In addition to the linguistic context, Glendon also prioritizes the liberal arts in ways that directly affect current research metrics performance. Moreover, Glendon has a number of units whose primary activities do not conform to conventional notions of research activity. These qualifications also apply to tracking research intensity via grant-funding since many, though certainly not all, of the disciplines housed at Glendon incline towards humanities pursuits that do not typically require substantial research funding.

Second, we wish to stress that we support this exercise as part of a larger effort to acknowledge the research accomplishments and efforts of York faculty. This is a worthwhile endeavour not only in and of itself, but is also worth pursuing to demonstrate to the provincial government, to our colleagues at other universities, and to current and prospective students that York is a research-intensive institution. This type of exercise should be conducted judiciously and circumspectly to avoid inequitable treatment of units and faculty and to avoid counter-productive pressure to generate research outputs inspired and driven by the demands of the exercise rather than for the advancement of knowledge. Many faculty in Britain and Australia have lamented precisely these consequences. We borrow the following two points from Glendon's PPC 2007 document: 1) that information gathered in this process should not be used to

pressure individual faculty to adjust their research to conform to tracking mechanisms, especially in the case of junior untenured faculty; 2) once York has established its approach to tracking research productivity, those criteria should be subject to regular review and revision so that we ensure they continue to reflect the faculty's research priorities and to capture traditional categories as well as innovation—disciplinary shifts, new programs, changing contexts.

Glendon's scholarly and creative outputs

Given its liberal-arts focus, Glendon is well represented in research output indices that measure research intensity, volume, and impact of traditional scholarship. Among the Glendon scholarly outputs that **are regularly tracked** (although not in a fully systematic way) are:

- Books published in English
- Articles published in English
- Book chapters published in English
- Tri-Council grants

Based on feedback from faculty members, among the outputs that are **not being properly tracked** are:

- Books published in French, Spanish, and other languages
- Articles published in French, Spanish, and other languages
- Book chapters published in French, Spanish, and other languages
- Online publications, both in peer-reviewed, online, open-access journals and in other venues with high impact and circulation
- Non-Tri-Council grants and other sources of funding for scholarly or creative activities
- Artistic productions—theatre pieces, films, performances.
- Academic "products", such as technological outputs, which may not live or be used exclusively within academic institutions but are the product of academic research and development. These include apps, online platforms, digital humanities tools, and open-source initiatives.
- Non-conventional forms of knowledge mobilization: special archives, scholarly databases, audiovisual materials for scholarly and educational purposes, reports for community organizations, (invited) expert reports to inform policy, and outputs designed for non-academic audiences.
- Contributions to public service and various forms of advocacy. Many of us do research on policy and are recognized experts in these domains. As such, we are often invited to provide expert testimony or advice to regulators, government and civil society organizations. Some of us are also invited to activities that are activist in nature and in which the scholarly background is welcome. These types of work, central to several

- fields, have been and continue to be under-recognized within academic frameworks.
- Leadership roles and forms of recognition of scholarly expertise on the part of scholarly communities, such as participation (often by invitation) in editorial committees and advisory boards of various kinds. Another form of recognition not properly recognized is participation in the form of guest editorship of journals and other publications
 - Transdisciplinary work that does not appear in publication form in well-established journals.
 - Supervision and mentoring of graduate students as new scholars/emerging researchers

Note: In addition to the types of outputs that are not being tracked, it is not clear to the faculty whether the outputs of contract faculty and of graduate students are counted.

Challenges:

- Any serious consideration of our university's optimal strategy for performance metrics must acknowledge the degree to which major commercial online citation databases define, track, and sell knowledge in self-interested ways to maximize their profitability as businesses. Web of Science, for example, and its related analytics tool, InCites, are owned by Thomson-Reuters, who also own West Publishing that specializes in legal education materials. A more conspicuously biased example is the Scopus index and its related analytics tool, Sci-Val. They are both owned by Elsevier. Elsevier is also a major commercial publisher of many prominent STEM journals and its journal package is the most expensive package purchased by the Canadian Research Knowledge Network (CRKN), of which York University is a member (Elsevier's subsidiary, Reed Exhibitions, is also heavily invested in the weapons trade and operates arms fairs throughout the world).¹ Elsevier has just acquired Plum Analytics, which sells Plum X, an analytics tool that claims to be the state-of-art alt-metrics index. There is a strong financial motive for these companies to excel at tracking the journals that they publish and providing escalating evidence of those journals' high impact factor. We should not remain passive participants in a system that elevates a narrow, market-driven definition of knowledge for which we then pay substantial annual costs to access.
- Given these structural limitations in their approach to knowledge tracking, it is unsurprising that many disciplinary and interdisciplinary research activities at which Glendon faculty excel have modest to no impact. As Glendon's Input on PIER already stressed, Scopus only tracks articles

¹ Richard Smith, "Reed-Elsevier's Hypocrisy in Selling Arms and Health," Journal of the Royal Society of Medicine, v. 100.3 (2007): 114.

- with English language abstracts, to Glendon's detriment given the campus prominence of French and Spanish. Although Glendon's Input on PIER recommended that Scopus should translate foreign-language abstracts, as a major publisher of English-only STEM journals there is a strong financial disincentive for Elsevier to acknowledge linguistic diversity in research. The narrowness of what Scopus and Web of Science counts as research affects many faculty at Glendon.
- At Glendon and at York we have internationally known scholars working in drama studies, documentary film, and a wide variety of creative activities, which are acknowledged as a category of knowledge. We also have faculty who regularly contribute policy reports to NGOs and other government bodies and who provide expert testimony in court cases across the country, the result of considerable research activity and specialized expertise that is not profitable to the metadata economy and therefore not tracked. Finally, but not least significantly, we have a number of new faculty whose work involves new forms of digital communication, open-source contributions to digital humanities projects, and non-institutional archives and other innovative "academic products" for which current concepts of knowledge and research are simply out of date.
 - In carrying out comparisons among faculties and among universities there is no equity when it comes to the conditions under which research is conducted. On the one hand, universities have a variety of focus areas and that does not appear to be taken into consideration when province-wide comparisons are conducted. Moreover, faculty members and units in similar areas have varying course loads, which also conditions the volume and intensity of research output.
 - In a university that is constantly evolving, and for which a measure of success involves the creation of new programs, incursion in new fields, and ongoing creation of research networks and collaborative projects, any effort to establish performance indicators must account for the changing nature of areas of research and of the institution.

Recommendations

- Given the vibrant scholarly and creative community at York and the broad range of discipline-based, interdisciplinary, and professional programs of the university, for the purpose of measuring performance the university would be better served by using a plurality of indices, including open-access sources, rather than trying to identify one database that will adequately encompass all. Several faculty members agree that, although not without limitations, Google Scholar captures their scholarly output more accurately than the costly subscription databases currently in use.
- The University should develop strategies to measure and recognize scholarly and creative outputs that are not being tracked. It is not sufficient to look for existing tools, as for certain fields and types of outputs such tools may not yet exist—e.g., often high visibility and impact contributions,

- such as awards, award-winning films, and other high-impact outputs, fall outside the scope of databases tracking traditional scholarly outputs, which are mainly English-language publications.
- The university has well-established, long-standing programs, as well as new programs it seeks to support and develop. Any discussion on metrics should take into consideration the use of tools that will appropriately represent the outputs of the faculty, including new hires, who are actively seeking various ways to contribute to their fields of knowledge and practice. Developments, and even shifts, in the content, framing, and forms of dissemination of research change constantly. A case in point is the emphasis on open-access publishing, which follows the ethical stance of aiming for increased accessibility. Another case in point is the diversity of publishing venues in specific fields, such as visual arts and communications. We believe that the university, as well as the province, must keep up with these shifts and adapt to changing scholarly environments.
 - The university has a commitment to research internationalization. There are a wide number of important international collaborations in the form of research networks, conferences, and other forms of global scholarly engagement that are not being tracked by the research databases currently employed.
 - York University has a tradition of community-based research informed by a commitment to social justice. The university houses projects and initiatives, both individual and collective—at the level of departments or research units—that include experiential and community components as an integral part of their research goals. This research-community relationship, its impetus, which is one of the features of the York community, must be recognized as a measure of excellence.
 - The criteria of research volume, impact, and intensity, are all closely linked to the specific kind of output that is being measured. Given the range and diversity of scholarly and creative outputs at York, looking exclusively at citations is a limited way of tracking research impact. Faculties would benefit from a discussion of how impact is measured so that the richness and diversity of Glendon's and York's outputs are not only recognized but also incentivized and supported.
 - Given the strong reliance on contract faculty at York, and the large and vibrant graduate student community, it is important to have a clear strategy to recognize the contributions of these members of our academic community.
 - The discussion about performance indicators should be conducted in close consultation with libraries. On the one hand, there are dedicated librarians devoted to identify specialized sources—databases and others—for each field (e.g., language and literature departments have the MLA database as one of the main sources of scholarly literature in various fields and languages). On the other, libraries are sources of material on metrics and alternative metrics—the York library has been working in this

area: <http://www.library.yorku.ca/web/research-metrics/> The library's rigorous work, if completed in consultation with units, would help evaluate the choice of discipline-specific indices. In fact, one way to deal with the multilingual and diverse nature of our scholarship could be a system of metrics that integrates, among other elements, the data we find in our very own library databases. In more general terms, to achieve research excellence, York and other universities in Ontario and Canada should provide continuous support to libraries.

Memo

To: APPRC via Robert Everett, University Secretariat
From: Michael Zryd, Secretary of Faculty of Graduate Studies Council
Date: February 21, 2017
Subject: FGS response to APPRC Committee call for feedback on "Tracking Progress on Objectives"

In preparing this response to the Tracking Progress Memorandum, we first took into account feedback from the FGS Representative on APPRC, and from the three decanal faculty in the Faculty of Graduate Studies (FGS). The request for feedback was circulated to FGS Council members and we presented the questions from the memo to FGS Council at its 2 February 2017 meeting, framed by the attached PowerPoint presentation. The two APPRC questions were presented to Council:

1. "How can York improve its tracking of progress and how can it use indicators to greatest advantage?"
2. "What specific indicators do you employ or should be employed to create the most inclusive possible set of indicators across the spectrum of scholarly, research and creative activities. Please provide concrete examples."

This memo integrates the discussion at Council and some other e-mail responses. To begin to address the question of how to deal with "performance indicators" and "research metrics," we first noted the pitfalls and inappropriate use of some quantitative metrics in different parts of the world. Examples included the widely unpopular RAE (Research Assessment Exercise) and REF (Research Excellent Framework) in the UK and the research performance indicators (HERD) used by the Department of Education in Australia. In addition, many have noted the problems with most University ranking systems (e.g., Maclean's magazine, QS World University Rankings, etc.), in that inherent biases towards valuing superstar academics (e.g., # of Nobel Prize winners) or medical research not only disadvantage young, non-medical school universities like York, but also fail adequately to capture the innovative research products and impacts of York scholars.

Despite these problems, it was argued that, in the context of Provincial Strategic Mandate Agreements (SMA) and the prospect of performance indicators being a factor in provincial funding, the University cannot simply downplay the role of metrics altogether. Moreover, if we believe in evidence-based policy, then we need to provide evidence of our research activities. The two main categories of research measure are "outputs" and "impact," each of which needs tracking. Ontario's SMA categories include Research Capacity (Total sponsored research, number of research chairs, number of graduate degrees awarded, number of graduate awards/scholarships); Research Impact (Tri-council funding, number of publications, number of citations, and citation impact); research focus (ratio of grad degrees (including PhD) awarded to undergrad degrees awarded); and international competitiveness (ratio of international to domestic graduates, aggregate of international global rankings).



The question becomes, “How do we at York University want to represent our research?” and, in the terms of the Memorandum, “How do we want to track our own progress on research?” We acknowledge the existence of some standard metrics and tools currently in use, e.g., Tri-Council funding and other external research funding grants, which provide some comparative context for York performance. For example, York’s traditional excellence in social sciences and humanities research means that York is one of the top universities in Canada for SSRHC PhD funding. Other sector tools are less satisfactory in measuring York faculty research outputs (e.g., SciVal / Scopus (Elsevier); RESEARCH Infosource). It was added that as an interdisciplinary university, it would be challenging to rely on a single research metrics that would not appreciate differing disciplinary epistemological priorities and preferences.

How do we account for those differences? In the specific context of FGS, it was noted that many standard tools and metrics do not measure graduate student research activities, including publications, conference presentations, and other standard research outputs. In other words, to the question posed in the Memorandum, “Do these metrics/tools ‘take into account York’s distinctive mission, make up and strengths’”? the answer is “not comprehensively.” How can York both set a standard for York-specific measures and be comparable to the Province? We need fine-grained measures that would allow for comparison across universities, and also by discipline. Moreover, many graduate students at York are in professional programs in which standard “research outputs” are not the focus of the degree. Rather, the training of professionals who contribute to the province’s health, legal, and administrative sectors is an important objective of the university that needs to be tracked systematically. Can we look at metrics outside the academic context to inform metrics for inside?

One way of reformulating the question is: “how do we represent evidence of York University research?” Given the mandate of FGS, the question was posed to find a better way of tracking research outputs of both graduate students and postdoctoral scholars. One important overall measure would enumerate how many graduate students are accredited or licensed (e.g., York’s professional programs), and also consider the impact of York’s graduate students after graduation, an impact extends far beyond the academy. Recent discussions at York (and occurring nationally) on revising the standard dissertation to incorporate non-textual elements (e.g., audiovisual media) and other research dissemination methods also points to other research outputs to track.

Examples of graduate student research activity included

- grants in support of research degrees
- journal and book chapter publications
- publications in languages other than English
- new translations
- conference proceedings
- conference presentations (panels, posters, etc.)
- research symposia and graduate conferences
- exhibitions of creative and artistic work
- curation
- community collaborations
- consulting for government and NGOS
- using research to influence policy-making
- expert witness testimony
- podcasts and other forms of knowledge mobilization
- innovative pedagogy with research dimensions

At Faculty Council, members also raised questions about collecting and managing information in a systematic and responsible way: given resource restrictions, do we have designated individuals to collect and compile research output data? We note that electronic student award software and graduate student Progress Reports (currently in paper form) might be valuable sources of future data. Councillor Adam Taves, Acting Associate University Librarian, provided expert guidance to Council on the availability of some tools on the library website. He informed the Council of the availability of different kinds of metrics, some based on old bibliographic methods, and some as more sophisticated “alternative metrics.”

A further question is how we can support these research activities. It is important to note that York provides important resources to students to support their research, starting with competitive funding packages for almost all research degree students, and including strong supervision and the FGS Graduate and Postdoctoral Professional Skills program (which includes sessions on publishing, knowledge mobilization, and grant development). We advise graduate Programs and Faculties to build on current supports to develop graduate student and postdoc grant applications, publications, conference and other research dissemination activities, and to consider the logistics of reporting on these and other graduate student and postdoc research activities.

In summary, while FGS recognizes the challenges of tracking the contributions of York University graduate students and postdocs, we support

- the development of mechanisms that measure the considerable outputs and impacts of current research and professional development
- expanding the definitions of what constitutes research and professional training
- developing more innovative ways to create comparable data that can substantively track York University outputs and impacts in relation to other universities in the province, and in national and international contexts.

**FACULTY OF
HEALTH**

Dean's Office

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736 5031
Fax 416 736 5760
healthdn@yorku.ca
www.health.yorku.ca

Memo

**To: David Leyton-Brown, Acting Chair, Academic Policy,
Planning and Research Committee of Senate**

From: Robert Bishop, Secretary, Faculty of Health Council

Date: February 10, 2017

**Subject: Faculty of Health Council Responses to APPRC Memo –
Tracking Success through Indicators**

Please find attached the Faculty of Health Council responses to the APPRC Memo for your consideration.



Question 1: One example of using conventional indicators to York's advantage involves the number of international collaborations between scholars at York and elsewhere, others include publications in languages other than English or material published by foreign publications; Can we collectively identify other ways in which the use of frequently used indicators or the addition of more inclusive indicators would provide a fuller, fairer picture of York research.

While some faculties have professors who complete a great deal research, the numbers used in the metrics become skewed when other faculties who are not research intensive are factored in. The Faculty of Health does well in research performance indicators. We might need to consider excluding those non-research Faculties into the denominator when we calculate our research output per faculty member. When we include the non-research Faculties, we make Health's numbers appear weaker than they are and groups like LA&PS will appear stronger in research areas which is not the case.

It was suggested that we poll Faculty members to determine what they felt the five top areas of importance were and to use those to establish buckets for metrics. From these we could determine what overlap existed and which areas to focus on.

Success based only on the number of publications that we publish in is not an accurate measure. York has a teaching heavy policy but that does not mean that the research we do is not published but rather it might take longer. Some of the research that the Faculty of Health conducts spans longer increments. It is longer to conceive; conduct research and analyze. Studies could take years but the impact is wide reaching. Additionally, the Faculty of Health shows leadership in the area of qualitative research. How can this be accurately captured within the current indicators or should an indicator be established to acknowledge these contributions?

It was suggested that students should be followed up with several years after graduation. It is at this time that they will recognize the full value of the education they have received, how applicable it is within their career and their overall satisfaction or dissatisfaction. Also, asking graduates how much money they are making after graduation is not an indicator of success. This metric needs to be thrown out.

Question 2: Are there any journals that are not normally covered by research sources?

Professional networks and associations typically have publications that are never factored into metrics. Academic impact and global impact are two very different discussions. By limiting the type of publications that are deemed high-impact to academic publications only, a number of our faculty member's work is excluded from the metrics. For some programs in the Faculty of Health, professional publications (for example: Nursing) will have more impact than a research journal that is read by only Academics. It was suggested that York metrics would be improved by removal of h-index or impact factor of academic publications. i.e. publications in academic journals of lower impact (as well as publications without any academic impact) should be considered important. Knowledge translation also takes place in other areas such as films and plays and the research findings are being highlighted in a different way that is not being accounted for.

Question 3: What aspects of Health's scholarly, creative and research activities are not normally covered?

Community impact and engagement were two topics that the Faculty of Health felt were not covered. We have a number of courses that focus on supporting our surrounding community at the undergraduate level. The province needs to be aware of the experiential education (EE) opportunities that are being undertaken by York.

The other topic of discussion in this area was our impact on traditional media and social media outlets. There needs to be a way to gauge our metrics in these areas. Faculty members are constantly being asked to provide supportive information to various media outlets such as radio or newspaper articles/interviews and York is positively influencing global discussions but the impact is not being captured and credited by the current metrics.

Question 4: Graduate students and post-doctoral fellows are also critical to York research, and there are a number of ways in which their contributions might be reflected. Are there indicators that are being missed such as publications, awards, major Tri-Council grants and honours, the number of graduate students, the collaborations they undertake and the like?

The Faculty of Health felt that this is an area of information that is not being tracked or funded properly. Faculty members who previously held Graduate Program Director positions do not recall being asked for data on how many Graduate students received scholarships, presented at conferences or went on to post-doctoral work. There was seemingly no database for this type of information. Monitoring this information would have a great impact on mentoring moving forward.

Other members felt that the programs were not being funded properly. When Graduate Students are hired as TA's, the money that they make in this role is used to pay for their education, however it might be more effective to fund these roles using scholarships that are recognizable and important to include on CV's and resumes.

Question 5: Do colleagues in Faculties conduct research that is distinctive or rarely undertaken elsewhere, or that may be under-valued; are there aspects of research in which York is cutting edge or clearly leading?

A lot of times work is conducted in a variety of ways that are not recognized because it falls outside academia and is not acknowledged in Academic publications.

The Faculty of Health has faculty members who have provided advice to government agencies (Canadian Senate, House of Commons, United Nations) where policies were shaped based on research that has been completed. We are extremely under-valued in these areas as there is no government model to account for our success in these areas.

We also have Nursing faculty members who are working with external agencies and groups where they do not receive funding or grant money for some research projects but are able to proceed with conducting research through volunteers. While the work being done is recognized within Nursing circles it is not acknowledged on a larger academic scale.

Similarly, we have faculty members whose research has helped to build education models and develop new degree programs in other countries and whose work is not being recognized under the current metric system.


We also offer several unique programs including: Health Policy and Equity, Critical Disability Studies and the History and Theory of Psychology. The History and Theory of Psychology Program at York is one of the few programs in the world where faculty and students can pursue advanced work in theoretical and historical psychology. We are world-leading (which is not an aspirational but a factual description), which can be attributed to the detail that not many programs in this area of work are left around the globe, but also based on traditional indicators of scientific achievement and in terms of leadership in professional organizations. Following the debate on metrics, we believe that this program is an example where York conducts research that is distinctive or rarely undertaken elsewhere, that may be under-valued, but in which York is clearly leading. In terms of criteria we would like you to consider the addition of leadership in professional organizations (including editorial positions), digital projects, and knowledge mobilization strategies that are not assessed with traditional academic metrics.

Question 6: Are there ways in which research productivity has evolved over time in ways that are not properly understood?

Using knowledge to influence policy has a profound effect on changing society. However when it is not captured as part of an academic publication, it is not valued in the same way and there is no accurate measurement of impact thus putting York at a disadvantage with the current metric system. The same can be said about media publications and social media outlets. The impact of these outlets for research is far-reaching however it is difficult to incorporate the impact into the current metrics.

Also, any voluntary consulting work and all professional activity that is done externally to the University is being requested and collected by through the Dean's office but how is it being used by the University to aid in developing metrics? Where does this information go?

TO: David Leyton-Brown, Chair, APPRC & George Cominel, Chair, Senate

FROM: Melanie Baljko, Chair, Lasonde Faculty Council 

DATE: February 10, 2017

RE: APPRC Request for Input on "Tracking Success through Indicators"

In response to your January 16th request for Faculty Council consultations, I write to you on behalf of the Lasonde Faculty Council, sharing a number of the emergent ideas that have been brought forward from the community. Council and its committees have held three meetings to consult on this very important issue. We regret that we are not able to articulate a precise casting of performance-based funding indicators as per your requested February 10th deadline, but rather have a series of core ideas and suggestions that APPRC might consider in its review of responses and deliberations at this time.

Please know that the collegium strongly concurred that further discussion and advanced research be undertaken to delve into detail on this subject in order to provide an accurate representation of the School and overall institutional framing of our position for future assessment. We expect to be in a better position to provide the type of details requested by APPRC over the course of the next couple of weeks. Members present at Faculty Council wish to acknowledge the contentiousness of this exercise, particularly and especially to non-STEM fields of research. We acknowledge the privileging of STEM fields over non-STEM in processes which seek to metricize research outputs. We wish to support the efforts of our colleagues in other fields as much as possible.

Question 1: How can York improve its tracking of progress and how can it use indicators to greatest advantage?

- It was strongly recommended that York invest in a sophisticated database management system that enables York to "track" its research activities (it was noted that existing platforms, e.g. SOPHIA are suboptimal) and in turn, will be better positioned to report on its research activities and successes.
- If funding is to be contingent on performance, then seek to ensure that confounding factors are neutralized through normalization. Examples of confounding factors: presence of a medical school in the institution, access to particularly large and well-developed research infrastructure.
- Observation that any metric has its advantages and disadvantages. A particular disadvantage is susceptibility to 'gaming'. To mitigate, seek to adopt a diverse range of metrics, drawing from so-called conventional metrics and 'alt'-metrics. Develop techniques to synthesize across metrics, to produce composite measures.
- Seek to investigate/foster deep awareness of instrument validity (i.e., the degree to which the measurement instrument, in this case, a performance metric, is actually measuring the thing it is purporting to, as opposed to some other aspect of process). Contextualization of any metric is keenly important. Quantitative analyses often afford (and indeed even encourage) 'apples-to-oranges' comparisons. Analyses of these issues should be understood and taken up carefully (for instance, the 2016 monograph by University of Quebec CRC, Yves Gingras, in "Bibliometrics and Research Evaluation Uses and Abuses", MIT Press).

- Be extremely wary of ‘one size fits all’ approaches to assessment of outcome across diverse types of outcomes (e.g., the many diverse types of scholarly, research and creative activities, all of which produce knowledge outcomes). Efforts to derive abstracted measures that apply generally run the danger of not capturing key aspects within particular paradigms of academic activities.
- With respect to using indicators to York’s greatest advantage, a suggestion is for York stakeholders to ensure they understand the expectation of the provincial representatives within the SMA exercise and take those into account.
- With respect to logistics, and how logistical issues can ultimately impact the end goal of efficacy, if there is the idea to leverage the Common CV (CCV) as extant technological infrastructure, LSE stakeholders would like to indicate that CCV is problematic. If there is the intent to use CCV in any sort of performance monitoring, then this should first entail the identification of and resolution of extant issues.

Question 2: What specific indicators do you employ or should be employed to create the most inclusive possible set of indicators across the spectrum of scholarly, research and creative activities? Please provide concrete examples.

- With respect to the validity of metrics in the general sense, LSE wishes to highlight the following issue: LSE in particular, and STEM fields in general, grapple with the issue of eliminating barriers to researchers from underrepresented and/or marginalized groups (for instance, women and others). It is felt that one aspect of these barriers concerns systematic bias in the characterization and/or measurement of performance. This often arises as a factor in hiring processes, but just as well concerns performance post-hire. One technique for mitigating this effect is to unpack the metrics, examine the ways in which they rely on ‘traditional’ career paths and career trajectories, and build in compensatory mechanisms. Draw on the body of work that is employed in build more equitable hiring practices.
- Metrics should properly recognize interdisciplinary/multi-faculty research projects.
- Metrics should take into consideration differences within publishing cultures. For instance, some research cultures involve publications with extremely long lists of authors, whereas other areas involve publications with relatively few authors.
- Metrics should distinguish between quantity/quality.
- There are serious concerns about the use of journal-level impact factors, discussions are on-going regarding the San Francisco Declaration on Research Assessment (DORA).
- Consideration should be given to “Alt”-Metrics vs “non-Alt” metrics
- Consideration should be given to research outputs (from STS researchers, both at York and elsewhere) which demonstrate biases, confounding, and instrument invalidity, in bibliometrics.
- One aspect of performance concerns looking at outcomes in terms of graduates from the undergraduate and graduate programs. Feedback includes looking at metrics that capture outcomes in terms of opportunities for undergraduate research, which is felt to be a strength of LSE. At the same time, there is the desire to not subordinate outcomes related to graduate-level students, and LSE does not wish to give the false impression that its program of research is solely undergraduate-focused. Metrics that concern outcomes of graduate-level students are important to LSE.

- There is the opportunity to align this metric-identification exercise with a similar exercise that is presently underway in LSE related to its own research intensification initiative. LSE seeks to take advantage of the opportunity and will continue efforts in this direction.
- As aspect of the LSE Research Intensification initiative affords the opportunity for faculty members to participate in the exercise of identifying the top-tier publication venues for their own research areas (as opposed to employing other techniques, such as journal impact factors). This is seen as a possible means to mitigate problematic reliance on journal impact factors.
- An opportunity exists to consider and to possibly employ the performance-based measures that are presently in use and/or under development in ORU's (such as CRESS, CVR, possibly others).
- York should consider opportunities to report on Accreditation successes, and measures related to research (e.g., Engineering, Education, Law, Social Work, Nursing, Computer Science, etc).
- York can and should demonstrate its excellence by focusing on specific research competencies in which we excel; these **competencies** refer to **capacities** among researchers to advance programs of research with a high degree of success (as opposed to looking merely at outputs without longitudinal context). Such competencies can and should be demonstrated via quantitative metrics. Such metrics are tools that can be useful when used correctly, particularly when they are in the service of a very clear and precise goal. Indices such as h-index are noted to be heterogeneous (i.e., composites which are measuring many different things simultaneously). Certain metrics — the ones for which validity is established — **are currently in use and Lassonde feels strongly in their continued use**. These include, among others, (i) measures to capture highly-cited publications (e.g., Outputs in Top Percentiles, Publications in Top Journal Percentiles); (ii) measures of research output (e.g., Citation Count, Citations per Publication and Field-Weighted Citation Impact); and (iii) research productivity (e.g., income measure as per faculty member).

Should you have any questions, or require additional input to this time-sensitive process, please do not hesitate to contact me at: mb@cse.yorku.ca.

Memorandum

To: David Leyton-Brown, Acting Chair, Academic Policy, Planning and Research Committee of Senate

cc: George Comninel, Chair of Senate

From: Brenda Spotton Visano, Chair of Faculty Council, Liberal Arts & Professional Studies

Date: February 10, 2017

Subject: Tracking Success through Indicators

Thank you for the opportunity to provide feedback on questions related to indicators to track our scholarly, research and creative activities. In response to your memo, dated January 16, 2017, please find below and attached a compilation of comments from various LA&PS members and constituencies. Specifically, we include:

- 1) Motion approved at the February 9, 2017 meeting of the Council of the Faculty of LA&PS;
- 2) Comments and reactions by Councilors at our February 9th, 2017 Faculty Council Meeting;
- 3) A memorandum from Associate Dean, Graduate Studies & Research, Sandra Whitworth (attached);
- 4) A report from Council's Committee on Research Policy and Planning (attached); and
- 5) Comments from members of Council's Academic Policy and Planning Committee (attached).

Motion approved at the February 9, 2017 meeting of the Council of the Faculty of LA&PS:

LA&PS Council would like to express its dissatisfaction with the use of simple metric indicators to evaluate scholarly work in our Faculty and expresses concern about the well-known shortcomings and perverse effects of such metrics on scholarship, particularly in humanities, social sciences and interdisciplinary research. We urge the Office of the Vice President Research & Innovation to work with us toward the creation of a more appropriate way of capturing the diversity of our research.

Comments and reactions by Councilors at our February 9th, 2017 Faculty Council Meeting:

A Councilor noted that they do not feel that quantitative research indicators properly represent the work done by our faculty, and they are opposed to the use of them.

A Councilor indicated that one of the reasons why we must consider these indicators is in regards to the renegotiation of the strategic mandate agreement (SMA). York wants to be recognized for research and we will need to show some sort of goal achievement for research in order to receive funds from the 'at risk' envelope. The Councilor noted that they understand the dangers of numeric indicators, but we must think about ways we can articulate what work this faculty does in order to receive funding.

A Councilor suggested that Council needs to come together to tell the province that this is the wrong way to go about this process. The Councilor felt that the SMA is being used as an excuse to bring forward these kinds of performance metrics. The Councilor emphasized that it is difficult to find indicators that will properly represent our Faculty, and Council should push back against the traditional metrics.

A Councilor noted that there are serious problems with the existing metrics, they do not capture the impact of the work this Faculty does, and we are years behind on the metrics game. They commented that they would not reject the exercise to find a way to express the kind of work that this Faculty does. The Councilor noted that we are in a complex political space, and pushing back to say that we do not want to participate is a dangerous course of action. They suggested that we need to counter the traditional metrics argument and find a way to properly articulate the work of this Faculty.

A Councilor asked if there is a demand by the province for common performance indicators or is there flexibility for different universities to offer different indicators they think are most relevant. This Councilor noted that in Atkinson the possibility of using research efficiency metrics was discussed. This would show that this Faculty does more work with less money.

A Councilor suggested that all of this information should be consolidated in one comprehensive document that would outline the diverse work done and emphasize

that quantifiable metrics are not effective for York. They noted that a succinct argument from LA&PS would be better than just a protest of metrics.

A Councilor noted that this Faculty has been discussing this issue on and off for a number of years and we should demand better service from the Vice-President Research & Innovation. They noted that LA&PS makes up half of the university, and these metrics do not properly reflect the type of work that LA&PS does.

A Councilor commented that they do not believe that LA&PS' protest regarding these research metrics has been heard. The Councilor urged that this Council needs to send a message regarding our concerns otherwise our protest may be ignored.

A Councilor who is on Senate noted that it is not the intent of APPRC for this to be the only discussion and consideration of this matter. They expect the discussion will continue, and APPRC is not expecting carefully crafted Faculty position papers on this issue. APPRC is looking to generate ideas before they provide their advice to the Provost and the President for the first round of negotiating the SMA. They noted that APPRC's discussions on this have been similar to the discussion here – widespread dissatisfaction with the existing metrics. This Councilor noted that the government is pressing for metrics, and either the government will impose traditional research metrics or we have the chance to negotiate for different metrics to be used. The Councilor noted that if we do not show how we will be measured someone else will.

A Councilor clarified that their earlier question was whether indicators are specific to universities. They noted that Senate said universities had the opportunity to differentiate themselves. They asked if indicators could be goal fulfillment rather than comparative across universities. Another Councilor clarified that in the SMA there will be some common metrics applied across all universities and it is possible for each institution to supplement those common metrics with institution specific ones. They noted that the institution specific metrics would not take the place of the common metrics.

Date: February 2, 2017

To: David Leyton-Brown, Acting Chair, Academic Policy Planning and Research
Committee of Senate
George Connell, Chair of Senate

From: Sandra Whitworth, Associate Dean Graduate Studies & Research, LA&PS

Re: Tracking Success through Indicators

**FACULTY OF
LIBERAL ARTS &
PROFESSIONAL
STUDIES**

Office of the Dean

S900 ROSS BLDG.
4700 KEELE ST
TORONTO ON
CANADA M3J 1P3
T 416 736 5220
F 416 736 5750

www.yorku.ca/laps

Thank you for the opportunity to contribute to the APPRC's Senate discussion of research indicators. As noted in your January 16, 2017 Memorandum, members of the York community have frequently expressed dissatisfaction with the limited array of metrics most frequently utilized as indicators related to scholarly, research and creative activities. This is a concern that very much impacts researchers within LA&PS.

It is worth addressing in the first instance the challenges of using traditional metrics within the Social Sciences, Humanities and Professional Studies. My predecessor Naomi Adelson worked with York's Institute for Social Research on a pilot study examining journal counts in two standard academic databases, Elsevier (Scopus/SciVal) and Thomson Reuters (Web of Science/Incites) as compared to journal publications reported in the CVs of 55 LA&PS faculty members (who volunteered their CVs for the purposes of the study). These types of databases are used by outside entities and some university offices to capture data on research output. The overall coverage for Scopus was 33% of the York authors' publications while for Thomson Reuters the average was 25%. In some but not all instances, coverage in the databases increased for more recent publications, but never exceeded 58% (and more commonly averaged 48%, even where coverage increased). The study also revealed an inconsistency in journal coverage, particular journals were 'captured' by the databases in some years but not others and there was no discernible pattern in that coverage.

Some examples illustrate the impact of this: of 3 articles that appeared in the Canadian Journal of Political Science by LA&PS authors, 0 were captured by Scopus and 1 by Thomson Reuters; of 5 articles that appeared in Middle East Focus by LA&PS authors, 0 were captured by both Scopus and Thomson Reuters; of 3 articles that appeared in the Canadian Journal of Philosophy by LA&PS authors, 1 appeared in Scopus and 2 in Thomson Reuters; of 3 articles that appeared in the Journal of Environmental Economics and Management by LA&PS authors, 1 appeared in Scopus and 1 appeared in Thomson Reuters; of 3 articles that appeared in Canadian Women's Studies by LA&PS authors, 0 appeared in either Scopus or Thomson Reuters; of 4 articles that appeared in Criminal Law and Philosophy, all 4 appeared in Scopus but 0 appeared in Thomson Reuters.

The ISR study may be limited insofar as it compares only a small portion of the LA&PS faculty complement to these traditional databases, but it nonetheless signals the ways in which traditional academic indices are unreliable indicators of the scholarly output of LA&PS researchers. And it is critically important to underline here: academic indices primarily capture journal articles, which are but one part of the typical LA&PS faculty member's scholarly work. That work can also include sole-authored, multi-authored and edited books, chapters in edited anthologies, textbooks, government and NGO reports and consultancies, corporate reports or contracts, encyclopedia entries, journal



editorships, conference presentations, media appearances, newspaper and magazine articles, social media engagement, audio-visual material, creative works, works of translation, participation on advisory groups, expert panels, and board memberships or serving as expert witnesses, and more activities, most of which will not be captured by these indices.

Research funding is another common indicator of research performance, and it can signal the level of engagement of some researchers, especially those who require support for field research, labs or who develop multi-collaborator research projects or partnerships. The absence of research income, however, is not in itself a measure of low output or performance. A great many of our researchers have minimal funding needs— they may conduct research in local archives, for example, or be engaged in scholarly readings of theoretical works, which requires little or no support from external agencies.

Determining the impact of scholarly work is an even more complex endeavour than measuring quantity of output. In a 2014 Working Paper (<http://www.ideas-ideas.ca/sites/default/files/2014-10-03-impact-project-draft-report-english-version-final2.pdf>) the Federation for the Humanities and Social Sciences outlines different ways to measure impact and cautions against an over-reliance on single quantitative measures. Citation indices, for example, are a traditional measure of impact but are usually dependent on the same databases which inconsistently capture the kind of work done by LA&PS researchers, as described above. Other measures of scholarly impact can include: downloads from open access repositories, citations or references in grant applications, published acknowledgements, prizes and awards, reputational measures (for example as determined by discipline surveys among appropriate expert cohorts), post publication peer review such as book reviews, impacts on teaching within disciplines (ie. via the regular appearance of publications in doctoral core courses), and the number and career trajectories of completed graduate students. In addition to scholarly impacts, the Federation for the Humanities and Social Sciences also recommends measures of economic, social and public policy impacts which should be included in addition to scholarly impacts (these can include media coverage, attendance at public events, citations in government or NGO documents, etc).

While measures such as these will provide a more complete picture of the kind of scholarship our faculty members are conducting and the impact it is having, the work to collect this kind of information is itself complex. The traditional commercial indices are attractive precisely because they promise data collection conducted with relative ease, but as already noted, that data is incomplete in conveying the range of work conducted by researchers in LA&PS. The converse of this - more complex, more inclusive and potentially more accurate measures of scholarly output and impact - will require an investment of time and labour to collect and cannot be carried by individual researchers or by existing research offices alone, without appropriate levels of support.

Finally, in your discussions it will be helpful to remain attentive to the question of whether measures or indices can ever completely capture the impact of the academic enterprise. There is a qualitative dimension to our work that does not readily conform to metrics, no matter how sophisticated. There has to be a place in these discussions where we continue to value and defend the single book or article that has inspired awe and utterly transformed ways of thinking. There may not be straightforward ways to measure this but many of us pursued scholarly careers because of those transformative moments and they are worth recalling when we are engaged in these types of discussions.

Committee on Research Policy and Planning Report

January 2017

To: Academic Policy, Planning and Research Committee (APPRC)

Feedback re: APPRC's request for input on research indicators

The LA&PS Faculty's Committee on Research Policy and Planning (CRPP) would like to offer the following response to the Senate's Academic Policy, Planning and Research Committee's request for feedback regarding performance indicators.

As we see it, there are two key items to consider: (i) how to determine which scholarly outputs to track; (ii) how to collect information on alternative research outputs from our faculty.

We first emphasize that, more so than in other faculties, LA&PS scholars produce a wide range of outputs that are not counted in traditional metrics based on ranked journal publications or large federal grants. These outputs include books, book chapters, reports to government, and activist work, to name a few examples. We also emphasize that there is substantial variation in the types of scholarly outputs that departments in LA&PS consider important. Thus, it is necessary to solicit lists of important outputs from individual units. Some LA&PS units have already approved standards for the new research release program, which may serve as helpful guides.

However, we note that the approval process for research release standards has been contentious in many departments, and the coincidence of these two processes may impede APPRC's ability to collect this information from individual units.

One specific recommendation is to develop a discipline-specific list of outputs in consultation with other universities. York is not the only institution with a large social sciences and humanities faculty, which may benefit from such a list. If a collection of Ontario universities could agree on a way of evaluating output from social sciences and humanities departments, the provincial government may take it more seriously.

We would like to draw the APPRC's attention to the excellent work on the logistics of collecting and analysing data on research outputs that Naomi Adelson undertook as Associate Dean of Research.

We also suggest that York (or York in conjunction with other Ontario universities) consider developing its own proprietary database of research outputs for LA&PS faculty.

We recognize that collecting information from individual faculty members is challenging. In principle, York's (public) faculty research profiles should be a useful source of data. However, these profiles are maintained by individual faculty, and the participation rate is low. In our opinion, there are two reasons for this: (i) some faculty members are unwilling to disclose their research activities; (ii) the faculty research profiles are not terribly user-friendly, and some faculty members cannot be bothered to update them. The first item is difficult to address; however, we believe the university should invest resources in addressing the second. The online system should be made more user-friendly. In addition, the university should actively solicit participation in these research profiles. If the university clearly communicates to faculty members that their participation will help the university or their individual units, we believe the participation rate will increase.

Thank you for the opportunity to engage in this important discussion.

This document was drafted by Merle Jacobs and Sean Kheraj on behalf of APPC for consideration by Faculty Council. Because APPC does not meet until February 8, the full committee has not yet had the opportunity to confer on this matter.

As the Faculty of Liberal Arts and Professional Studies considers its response to these questions it is important that we assert our understanding of the problems with research metrics as a tool for transforming evaluative frameworks and the incentive systems influencing academic and scholarly endeavor. We therefore offer the following observations.

The use of metrics may be relatively uncontroversial in some organizations or business enterprises where products and outcomes are very tangible and where specific contributions by participants to those outputs are easily measurable. It is well recognized, however, that many areas of academic work and types of research activities deal with goals, processes and outputs that can't easily be captured by metrics. The authors of the "Leiden Manifesto" found that research metrics run the risk of "false precision," perverse incentives and the abandonment of qualitative judgement (Hicks, Wouters, Waltman, Rijcke, & Rafols, 2015). A recent report at Western University found support for this conclusion through extensive surveys and interviews involving faculty members in the social sciences and humanities disciplines (URB Task Force, 2016). Indeed there is evidence that increased emphasis on metrics encourages "goal displacement.(De Rijcke, Wouters, Rushforth, Franssen, & Hammarfelt, 2016)." One example is that researchers in fields in which books are highly valued have begun to react strategically by publishing more journal articles which are more favourably recognized by research indicators (The Expert Panel on Science Performance and REsearch Funding, 2012). When research metrics are used in performance evaluation (of institutions or individuals) then academic activities that are not captured by metrics may be devalued, such as teaching, mentoring, graduate supervision, reviewing and non-traditional academic dissemination and impact.

The unintended consequences of metrification may be felt within the larger research ecosystem as well. For example, authors under pressure to publish more to meet the standards set by quantitative metrics have less time to contribute as peer reviewers for journals. Competition to publish in the most highly ranked journals adds to the burden placed on the "reviewer commons" as it creates an escalation in the number of submissions and reviewing instances (Hochberg, Chase, Gotelli, Hastings, & Naeem, 2009). In this connection Nobel Laureate Randy Schekman has pointed to the fact that many publishers increasingly hire professional journal editors rather than "working scientists" to boost the journal's standing. As a result, competition for prestige and high impact factors in the journal industry has arguably compromised scientific quality in favour of what is topical, "eye-catching" or what can produce the greatest number of citations (Shekman, 2013). Large institutions such as York have a responsibility to be aware of the system-wide consequences of an overreliance on research metrics.

Peer review is the basis for academic recruitment and promotion processes, as well as most of the procedures for allocating research grants. Whatever its faults, peer review, with its

irreducible focus on qualitative judgement, lies at the core of the governance of the research process. It is indispensable for understanding the value of what we do as researchers, and how to encourage and promote new kinds of research contributions. The process of peer review can make use of metrics, but not as independent criteria of evaluation. Quantitative metrics are intended to provide more 'accountability', but when they are used as independent measures of value they have the effect of displacing peer review (The Expert Panel on Science Performance and REsearch Funding, 2012). They also give managers and external stakeholders of the research process greater influence over its direction (Hasselberg, 2013). Justification of hiring decisions by citing metrics can be used by administrators to question or overturn subsequent hiring decisions when the latter is not based on the same metrics. This can even reinforce the dangerous (often implicit) assumption that hiring decisions themselves should increasingly come under the control of administrators rather than experts in the field (Werner, 2015). While peer review itself is not perfect, it does place a greater emphasis on qualitative judgement and provides a basis for recognizing aspects of research and scholarship that are hard to quantify such as whether a work or a project is unique, interesting or adds an alternative perspective to a field of inquiry.

There are many other shortcomings of quantitative research metrics which have been established in the literature. For example, there is strong evidence that standard research metrics fail to capture the value of interdisciplinary work and heterodox perspectives. (Rafols, Leydesdorff, O'Hare, Nightingale, & Stirling, 2012) Studies by Canadian economists have shown that the pressure to publish in high impact journals (typically from the U.S.) has diminished the amount of Canadian focused work done by Canadian economists. (Simpson & Emery, 2012). Researchers experiencing intense pressure to raise publication counts often engage in strategic behaviour such as "salami slicing" (producing more publications to express the same number of findings or ideas) and risk aversion where researchers select proven pathways and frameworks of inquiry that can create a quick payoff at the expense of potential innovation. (Fry & Osterloh, 2011) The competition for publications in top journals, or the competition to write and produce the most in the shortest period of time can have perverse effects including, in the worst cases, results that can't be replicated, "honourary authorship," careless research and even fraud.(Haustein & Larivière, 2015)

Given the strong evidence of the shortcomings and often perverse incentives associated with research metrics it is of the utmost importance that our Faculty, and York University as a whole resist the trend towards over simplistic and compulsory metrification. Our university has a strong tradition of research innovation and the promotion of critical and heterodox scholarship, both of which can be threatened by the dangerous reductionism inherent in metrics-driven approaches to research evaluation.

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Additional Notes and Remarks from Chair of APPC (Sean Kheraj)

The limits of quantitative research metric (standard bibliometrics and altmetrics) as indicators:

- Current tools available for measuring standard bibliometrics and altmetrics do not accurately or adequately quantify research output or impact, especially in social sciences and humanities disciplines
- Current tools exclude books
- AltMetrics are currently non-standardized; limited comparative value
- The development of custom metrics at York is inadvisable:
 - Costly and time consuming
 - Non-standard - offers limited comparative value to other systems of measurement
- Quantitative systems of measuring research uncommon in social sciences and humanities disciplines - not part of research culture or practice
- Quantitative systems of measuring research output can produce unintended disruptions to or distortions of research processes
- Quantitative systems fail to capture influence of scholarship on communities outside of academia; community-engaged research; public scholarship; popular dissemination; contributions to public discourse and debate
- Quantitative systems do not measure application of research findings in policy development

How to measure and evaluate research:

- Peer review has been the customary process of evaluating research output and impact
- Third party peer reviewers with field-relevant expertise consider the research output and impact of colleagues in our current tenure and promotion process
- Employing a qualitative peer-review approach to the analysis of scholarship is the optimal method of developing research indicators

Schulich School of Business: Impact Indicators – Tracking of Research Progress

Response to the Academic Policy, Planning and Research Committee

The size and quality of Schulich's faculty allows for both depth and breadth in terms of research coverage. As leaders in their respective fields, our faculty's research enjoys widespread interest not only in the academic community, but also in the corporate community and in the public at large. To maintain a strong commitment to research, we have implemented strategies to encourage productivity, capitalize on our research strengths, and recruit quality researchers.

Schulich Research Office keeps tracks on research impacts through

- (1) A listing of the outlets (journals, research monographs, published cases, funded and competitive research grants, scholarly presentations, invited presentations, published textbooks, other teaching materials, etc.);
- (2) An analysis of the breadth of faculty engagement and production of intellectual contributions within each discipline;
- (3) Awards, recognition, editorships, and other forms of validation of the accomplishments of faculty through their intellectual contributions.

We use a non-exhaustive list of possible impact indicators, including publications in highly recognized peer-review journals, citation counts, editorship and associate editorships, elections to leadership positions in academic and/or professional associations, external recognitions for research quality, invitations to participate in research conferences, use of academic work in doctoral seminars, awards of competitive grants from major national or international agencies, patent awards, appointments as visiting professors or scholars at other institutions, case studies of research that leads to the adoption of new teaching/learning practices, textbooks that are widely adopted, research-based learning projects with companies, and/or non-profit organizations, and widely used instructional software. Schulich's biennial Faculty Appraisal measures activity in research, teaching and service and provides recognition as well as advice and support for improvement.

Faculty of Science Response to APPRC --Tracking Success through Indicators

How can York improve its tracking of progress and how can it use indicators to greatest advantage?

Through SciVal and Sophia, the Faculty of Science has access to a wealth of data that can be used to generate meaningful performance indicators. However, these databases do present some challenges: For example, in SciVal, a profile must first be created for each Faculty member that is based solely on publicly available data. These generated profiles may not necessarily capture all collaborative work with colleagues outside York or with non-academic bodies. The same consideration must be made for books, book chapters and book citations.

Updating faculty profiles, ensuring accuracy, and capturing other data is a substantial task. Even for a medium-sized faculty like the Faculty of Science, it is unrealistic to think that it will be able to generate a meaningful database without participation of every faculty member in each unit.

What specific indicators do you employ or should be employed to create the most inclusive possible set of indicators across the spectrum of scholarly, research and creative activities? Please provide concrete examples.

We reviewed the document that was submitted by the Faculty of Science (Faculty of Science and Engineering at the time) to APPRC in September 2007. Although, this document is still highly relevant, we would like to add that altmetrics are meaningful in our Faculty and it would be useful to include these regularly in our yearly reporting but again, this requires resources to compile them. Altmetrics pertains to any single research output generated online in multiple websites and across dozens of different platforms.

We would also like to reiterate that there will be different practices between fields of research in terms of research outputs. Many of these differences are discussed in our Sept. 2007 document. Our Science and Technology Studies Department (STS) has submitted the following to address both points:

In the case of STS, research indicators may look very different than those for the sciences. SSHRC grants are fewer in number and have very different success rates than NSERC grants. For example, in 2012 SSHRC Insight Development Grant applications had a success rate of 27%; NSERC Discovery Grant applications had a success rate of 62% (<http://tinyurl.com/hjos6dx>).

STS papers are typically single authored and much longer than they typically are in the sciences. Chapters in edited books, which are often not counted in citation indices, can be more important than journal articles. Likewise, the organization of conferences, taken from an academic point of view (rather than the logistical one), can be very important,

as they foster networking and often are the basis of important publications. Books are generally the most important scholarly contribution, but this makes citation analysis a much less helpful indicator than it might be for other fields. Per a recent analysis, in history of science $\frac{3}{4}$ of citations are to books, but those never make it to citation counts. (Gingras, 21)

Even in the sciences, citation counts alone can be very misleading when considered in isolation. Eugene Garfield, founder of Scientometrics, quipped that if citations alone were to use to ascertain scientific standing, then in the 1950s the greatest scientist would have been Trofim Lysenko!

A quantitative system that is used to entirely replace human judgement about quality of research is dangerous, as it can lead to the idea that outsiders who knows nothing about a field can objectively assess research about which they know very little. This isn't just referring to administrators, but even an evaluation committee that doesn't have time to read papers in field.

A thermometer measures only temperature and the resulting number says nothing about humidity. This is an example of a homogenous indicator. On the other hand, a heterogeneous indicator can provide us one number describing both temperature and humidity, but it cannot tell us which variable is changing. Analogously, in terms of faculty output, a change in h-index cannot tell us whether quantity or impact has changed.

Any quantitative metric requires periodic review by knowledgeable peer reviewers in the field. The desire to have accurate and comprehensive metrics must be tempered by the time and energy required by faculty that could potentially interfere with their research endeavours.

Reference:

*Yves Gingras, *Bibliometrics and Research Evaluation: Uses and Abuses* (MIT Press, 2016)*

As we continue to engage in discussions regarding research indicators, we must be aware that the greatest challenges at this time are the lack of resources to undertake a meaningful exercise and the knowledge that indicators cannot be measured without considering the research practices of a given field.

Prepared by S. Morin with consultation from the Faculty of Science Associate Deans, Departmental Chairs and Faculty members through a call from our Faculty Council.

To: Les Jacobs, Chair, APPRC
Robert Everett, Secretary, APPRC

From: York University Libraries

Date: 10 February 2017

Subject: Libraries' Response to Tracking Progress on Objectives

The Libraries recognize the limitations of current traditional research metrics, especially in the context of enduring and historical areas of research strength at York University. The Libraries have strived to provide information on the current state of research metrics, to highlight some alternative and emerging approaches, and to provide information and further reading about the limitations of any tool or approach. Underlying any assessment of research productivity is one dominant theme: no single number or approach (e.g., the ubiquitous h-index) produces an accurate picture. For more information about the Libraries' efforts, see <http://www.library.yorku.ca/web/research-metrics/>. Of particular interest is [this best practices document](#) which enumerates a wide array of metrics for a number of different types of scholarly outputs: journal articles, books, creative works, and non peer-reviewed publications curated in repositories. [1]

There are a wide variety of activities in which scholars engage, and we need to ensure that we are actively capturing the resulting wide variety of artifacts emerging from those activities. All tools offer only a partial accounting of impact or predominance of a particular scholarly or creative artifact. Some examples of these include but but are not limited to:

Books

Books and book chapters are not well-served by traditional research bibliometrics, which have focused mainly on journal publications. There are however, some imperfect tools that are worth exploring to help address the problem:

- *Open Syllabus* <http://opensyllabusproject.org>
Useful tool for a researcher if books or book chapters written are required or recommended frequently in course syllabi. In relation to this tool, *course proposals* can be mined to identify York authors that are listed the most in the bibliographies.
- *Bookmetrix* <http://www.bookmetrix.com/>
A Springer product that helps authors see if their books are being cited, discussed, or used around the world.

For collection development purposes, librarians sometimes use tools to assess the popularity of particular items:

- *Gobi, ProQuest OASIS, and OCLC Worldcat*
Two of the dominant book vendors serving academic libraries in North America. These tools can be useful to identify books' sales numbers. In addition, *OCLC Worldcat* can help identify the number of OCLC member libraries that own a particular title (or edition/imprint of a particular title).

Media

There needs to be a mechanism to track scholars who are being invited by the media to discuss their research activities. Sometimes scholars' research outputs are mentioned in newspapers and other media. The CBC's Quirks and Quarks radio show is one avenue where researcher's discoveries are highlighted, especially in the sciences. The show is not only broadcast nationally, but has an international audience as well. Some notable research activities and research awards get highlighted in Y-file, which can be easy to track.

Journals

For the most part, journals and journal articles have been the only form of publication to receive substantial metrics coverage, although each available provides only a partial view of the bibliographic universe. The tools with the widest coverage and most substantial coverage, such as *Scopus/SciVal*, *Web of Science*, *Journal Citation Reports* and *Google Scholar* are available in the York University Libraries' Research Metrics guide:

<http://www.library.yorku.ca/web/research-metrics/>

Encouraging broad uptake of ORCID identifiers <https://orcid.org/about/what-is-orcid/mission> allows for credit to be given to scholars for their broader contributions to the scholarly ecosystem. This example discusses how ORCID's can be used to recognize peer review contributions: <https://orcid.org/blog/2016/09/22/recognizereview-orcid>

Similarly, the *Publons* (<http://www.publons.com>) initiative can help scholars "showcase their peer review contributions across the world's journals".

Some scholars, editors and journal publishers, upon "recognizing the need to improve the ways in which the outputs of scientific research are evaluated, developed a set of recommendations, referred to as the San Francisco Declaration on Research Assessment". More information on this initiative can be found at <http://www.ascb.org/dora/>

YorkSpace (<https://yorkspace.library.yorku.ca/xmlui/>)

York's institutional repository where York University community members can post and disseminate their scholarly outputs. YorkSpace has the capability of tracking download statistics. Beyond scholarly articles, YorkSpace also houses other types of work, such as theses and dissertations, videos, images, data, etc.

[1] Herbert, Bruce (2016). *Best Practices for the Use of Scholarly Impact Metrics*. Available electronically from <http://hdl.handle.net/1969.1/156054>

Memo

ASSOCIATION OF
RETIRED
FACULTY AND
LIBRARIANS

c/o YUFA
240 York Lanes
4700 Keele St.
Toronto ON
Canada M3J 1P3

yuarfl@yorku.ca

robertd@yorku.ca

To: David Leyton-Brown, Acting Chair, Senate APPRC
From: Robert J. Drummond, President, ARFL
Date: January 27, 2017
Subject: Performance Indicators

We understand that the Senate Committee on Academic Policy, Planning and Research, in anticipation of the SMAs soon to be negotiated, is discussing metrics that might reasonably be applied to university academic performance. We are aware that the provincial government intends to apply performance measurement using some indicators that will be applied to all institutions, but that it is also allowing individual universities to recommend metrics that are more closely attuned to their unique strengths. The Committee will no doubt be aware that many indicators of university performance are viewed with skepticism by faculty who recognize their teaching efforts may not be seen to bear fruit until a graduate has been many years removed from the classroom, and by librarians whose contributions to research and teaching may too often be taken for granted. Even the standard quantitative measures of research productivity suffer from the absence of measures addressing quality or long-term impact. However we recognize that measurement is inevitably to be applied and we commend Senate for its efforts to ensure wide consultation on this important matter of academic policy.

In the past year the Association of Retired Faculty and Librarians has been conducting some research into the continuing scholarly and creative activity of ARFL members, and we have found that a significant number of retirees maintain an academic presence for several years after leaving full-time employment. We believe it is in the interests of York to acknowledge and support such activity and to ensure that it is recognized in metrics applied to the University's academic performance.

It has become apparent from our research that the range of contributions by retired faculty and librarians is very broad, including:

1. Teaching undergraduate and graduate courses;
2. Graduate supervision, and serving on supervisory and examining committees of graduate students;
3. Engaging in a wide range of research and linking into local, national and international research teams;
4. Obtaining research funding;
5. Publishing research findings in refereed journals and in books, reviewing books and articles, and presenting research at academic conferences;



6. Organizing conferences and sessions at learned society meetings, at York and elsewhere, and presenting conference papers, acting as a discussant and serving on panels;
7. Media contributions (including expert commentary) – TV, radio, newspapers, journals, blogs, Twitter etc.;
8. Visiting fellowships;
9. Academic lectures outside York;
10. Contributions to community and social activities (paid and unpaid).
Community service including giving lectures to community groups, serving on panels and other community advisory organizations, and doing voluntary work for community and voluntary organizations;
11. Editing journals and serving on editorial boards;
12. Refereeing papers for journals/ book manuscripts;
13. Communicating with, and organizing events for York alumni;
14. Evaluation of promotion files;
15. Mentoring younger colleagues on a wide variety of matters.

While it may not be the case that all of these activities can contribute to the measurement of York's academic performance, it would be regrettable if scholarly and creative activity of emeriti were insufficiently recognized in the process. We would be happy to engage with the Committee on determining the best means to ensure such recognition.