Senate of York University
Academic Policy, Planning and Research Committee

Tracking Progress to Achievements
Overview of Faculty Council Submissions

In January 2017 the Acting Chair of the Academic Policy, Planning and Research Committee and the Chair of Senate invited Faculty Councils to respond to two questions set against University Academic Plan objectives:

> 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.

Responses were received from all Faculties. In this report APPRC summarizes what it has learned from the submissions in the hope that they will benefit the community as planning goals are implemented. The Committee was at pains to stress 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)." This summary report is organized around themes that emerged organically from the opening phase of this dialogue.

APPRC is mindful of the concerns expressed by the community about metrics and their use. One section of this document points to critiques and concerns. It should be recalled that metrics are a fact of life in the Strategic Mandate Agreement framework, and that funding for York, its researchers and students is tied to performance on conventional indicators. The allocation of research chairs is also dependent upon Tri-Council funding.

Another compelling reason for undertaking these consultations is to influence the development and application of indicators so that they are as broad as possible, take into account a full range of activities, fairly reflect the breadth and impact of research at York and other universities, have a grounding in peer review, and inspire faculty member colleagues and students to pursue opportunities for undertaking and disseminating research.

The Committee is grateful to Faculty Councils and the York University Association of Retired Faculty Members and Librarians for their thoughtful, thorough and timely input. Together they have helped create a document that is at once unique and valuable.

APPRC urges Faculty Councils and units throughout the University to continue to explore these questions in collegial settings. The responses reflect York's diversity but there is much to be gained from reflecting on perspectives and practices rooted in local cultures.

I.   Commonly Used Indicators

University and unit research rankings typically rely on quantifiable inputs and outputs -- grants and other research income, journal articles and citations – collectively and per capita (intensity). One goal of our *University Academic Plan* is to improve performance on such conventional metrics, notably by encouraging faculty members to apply for funding from the national agencies and seeking out funding through partnerships. Higher numbers of applications, along with mentorship and feedback, translate into greater success in tangible ways, including the amount of funding and funded positions available to the institution and graduate students.

> 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.

It is widely recognized that these indicators do not tell a complete and accurate story of York's research. Yet Faculties and units regularly collect and project data on scholarly activity, including the following:

- lists of journal articles, research monographs, published cases, funded and competitive research grants, scholarly presentations, invited presentations, published textbooks, and other teaching materials (in Schulich's case, accompanied by analyses of the breadth of faculty engagement and production of intellectual contributions within each discipline)
- awards, recognition, editorships, and other forms of validation of the accomplishments of faculty through their intellectual contributions
- publications in highly recognized peer-review journals (with data refined to publications in top journal percentiles)
- awards from competitive grant competitions from major national or international agencies
- measures of research output (e.g., citation count, citations per publication and field-weighted citation impact);
- research productivity (e.g., income measured per faculty member)
- publications through practitioner journals
- conference presentations, workshops, and invited speaking engagements to professional communities of practice outside of the academy

Schulich reports that its biennial appraisal measures activity in research, teaching and service and provides recognition as well as advice and support for improvement. York fares better on rankings based on discipline normalized scores, which can use publically available data but take into account impact[1]. Influence and impact can also be exerted, and scholarly excellence demonstrated, by other means. But there are important reasons for tallying, including the objectives of the University Academic Plan and Strategic Research Plan, both approved by Senate.

II.   Toward Collegially-Defined Indicators (Qualitative and Quantitative)

The UAP calls for more inclusive expressions of research activities to impart a better sense of their range and impact. This is because, as discussed in more detail below, routinely accessed

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[1] Jarvey, P. and Usher, A. (2012). Measuring Academic Research in Canada: Field-Normalized University Rankings 2012. Toronto: Higher Education Strategy Associates.

metrics are limited. To take but one example, as Glendon noted, tracking is more reliable for books and chapters published in English. Other submissions pointed to gaps in tracking works first published or translated into languages other than English, the *lingua franca* of global publication, something that APPRC members know from first-hand experience. Similarly, Tri-Council grants are picked up with relative precision while other forms of funding are hit-and-miss. To cover these lacunae, colleagues have nominated other ways in which research activities; engagement and impact can and should be documented. The following alphabetized list compiles suggestions made by Faculty Councils – many but not all of a kind that appear in CVs:

- 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)
- academic lectures outside York (community service involving lectures to community groups, serving on panels and other community advisory organizations, and doing voluntary work for community and voluntary organizations)
- appointments as visiting professors or scholars at other institutions
- articles published in French, Spanish, and other languages
- artistic productions—theatre pieces, films, performances.
- books and book chapters published in French, Spanish, and other languages
- case studies of research that leads to the adoption of new teaching/learning practices
- case studies of research that leads to the adoption of new teaching/learning practices
- catalogue essays, 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
- commissions and the process for commissions – works, performances, public art taking into account that there are disciplinary hierarchies
- communicating with, and organizing events for York alumni
- community partnerships and projects along with contributions to community and social activities (paid and unpaid)
- curatorial activities and curatorial leadership
- development of instructional software
- editing journals and serving on editorial boards (editorships and associate editorships)
- elections to leadership positions in academic and/or professional associations
- engagement in a research linking local, national and international research teams
- evaluation of tenure and promotion files
- external recognitions for research quality
- graduate supervision, and serving on supervisory and examining committees of graduate students
- 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
- guest editorship of journals and other publications
- invitations to participate in research conferences
- invitations to participate in research conferences
- invitations to present keynote addresses, performances, installations or to participate in

exhibitions, conferences, screenings, etc. taking into account that there are disciplinary hierarchies
- Knowledge Mobilization (KM) events and activities
- 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
- media contributions (including expert commentary) – TV, radio, newspapers, journals, blogs, Twitter etc.
- mentoring younger colleagues on a variety of matters
- non-conventional forms of knowledge mobilization: special archives, scholarly databases, audiovisual materials for scholarly and educational purposes
- non-Tri-Council grants and other sources of funding for scholarly or creative activities
- number of hits, unique visits to online published material sites
- online publications, both in peer-reviewed, online, open-access journals and in other venues with high impact and circulation
- organizing conferences and sessions at learned society meetings, at York and elsewhere, and presenting conference papers, acting as a discussant and serving on panels
- patent awards
- public service through advocacy[2] and influencing public policy
- publishing of textbooks that are widely adopted
- refereeing papers for journals/ book manuscripts
- research funding pursued but not necessarily awarded (fundable but unfunded), where appropriate to the candidate's program of scholarly/creative research
- research-based learning projects with companies, and/or non-profit organizations
- reviewing books and articles
- reviews of faculty work by others in discipline specific journals, E- zines, etc.
- scholarly or creative work 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
- student engagement and training through our scholarly work and research
- textbooks that are widely adopted
- transdisciplinary work that does not appear in publication form in well-established journals
- use of academic work in doctoral seminars
- use of academic work in doctoral seminars
- visiting fellowships
- widely used instructional software

Two ideas emerged from discussions in the Faculty of Education that were thought capable of helping to document research impact and achievement both qualitatively and quantitatively:

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[2] Many 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.

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 it 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.

The advantages of this approach were said to include the following:

- 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.

York has a commitment to research internationalization. Scholars are undertaking wide variety 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 – but should be. York is able to document its leadership when it

comes to collaborative work and greater sharing of information would undoubtedly enhance this standing.

III. Additional Available Indicators and Accessible Databases

Members of the researcher community are aware that the databases used to track research are incomplete or inconsistent. They can also be biased, costly to access and narrow. The University is working with companies to overcome some of these deficiencies. Some respondents noted that Google Scholar can be superior tool but is far from reliable. In general, *altmetrics* offered meaningful ways to develop more inclusive indicators. It was felt that York would be best served by using a plurality of indices, including open- access sources, rather than trying to identify one database that will adequately encompass all. APPRC and Senate were given an example of this in November 2017 when Vice-President Haché reported that York researchers are second in the province of Ontario when it comes to references in positive mainstream media coverage of research. YUL offered examples of other tools in an annotated list citing the following:

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.

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).

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 ORCIDs can be used to recognize peer review contributions: https://orcid.org/blog/2016/09/22/recognizereview-orcid

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.

YUL also commended this resources at

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

Of particular interest is a 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.

Although there are some who feel that York should develop custom metrics, it was noted that would be costly and time-consuming and non-standardized. It is for this reason that APPRC has endorsed York's efforts to work with others to develop indicators in the SMA exercise and in other contexts.

IV.   Limitations of Current Databases

> Whatever its faults, peer review, with its irreducible focus on qualitative judgment, 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.

English is the lingua franca for international scholarship and publications in other languages are not well captured a context that is of particular importance to Glendon.   There are other drawbacks, and respondents pointed to these limitations:

- 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
- altMetrics are currently non-standardized and of limited comparative value
- 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
- for Sophia and SciVal, a profile must first be created for each Faculty member that is based solely on publicly available data and 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
- tracking of open access sources is spotty even though many early-career scholars are taking advantage of online publication
- they do not track well the work done by contract faculty members and graduate students
- because they are institution-specific, the relative standing of Faculties is obscured
- professional networks and associations produce publications that are not factored into metrics
- social media are not well covered

Lassonde surfaced 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.

A number of responses stressed the ongoing of peer review as a gauge of scholarly contributions. It was argued that "measurement should be carried out by: peer review (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 / employing a qualitative peer-review approach to the analysis of scholarship is the optimal method of developing research indicators."[3]

V.   Concerns and Critiques

There are deeply felt and thoughtfully expressed worries about "simplisitic and compulsory...metrification" in the collegium   For some respondents, efforts to impose metrics should be resisted as being fundamentally at odds with the solely reliable form of assessment in the academy– peer review. Peer review, it should be recalled, is the basis for academic recruitment and promotion processes along with procedures for allocating research grants and internal and external awards.

Other reasons for resisting the imposition of metrics including the following:

- the possibility or indeed likelihood that certain kinds of metrics will steer research in directions that are inimical to independent inquiry
- the introduction of indicators that are more suited to – or at least more common in -- other sectors that are alien to higher learning
- quantification will downplay other forms of scholarship and its assessment
- heterodox perspectives and interdisciplinary work will be diminished
- American titles dominant so-called "high impact" journals and researchers may be pulled away from Canadian titles
- researchers may respond with "salami slicing" – producing more publications to express the same number of ideas and findings – or "risk aversion" where they tried familiar pathways for quick payoffs instead of seeking innovation
- indicators are attended by an alien framing language – "measurement" as opposed to "demonstration," a preferable concept that can more revealingly capture both

> 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.
> - LA&PS Motion, Faculty Council Meeting, February 2017

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[3] Liberal Arts and Professional Studies submission.

quantitative and qualitative
- the undoubted commercial interests that citation databases and, in some cases, their ties to subsidiaries that are involved in (for example) the weapons trade in the case of Elsevier's subsidiary Reed Exhibitions; the market ethos of these companies narrows the range of publications, discriminating against languages other than English and resisting tracking research activities that are not profitable in the metadata economy
- the failure of databases to take into institutional hierarchies and equity dimensions such as funding, relative workloads, access to supports
- the kinds of activities that have enhanced York's reputation – community-based research informed by a commitment to social justice – and simply not represented
- conventional indicators privilege STEM disciplines over non-STEM fields

For some respondents, York should seek to impact and influence rather than build numerical profiles.

VI.   Metrics for Other Activities

Under SMA2 York's funding is protected. In the next agreement, more of the grants will be based on the University's performance on a range of indicators. Although the focus of the exercises falls on research in the main, respondents were also asked to comment on other forms of measurement.

> Asking graduates how much money they are making after graduation is not an indicator of success - this metric needs to be thrown out.

We did receive a number of helpful comments, such as the suggested of a follow up with students several years after graduation when they will have a better sense of the full value of their York education, how it paved the way to employment, and their overall satisfaction or dissatisfaction.

As the President, Provost and APPRC indicated in 2017, it is not too early to begin a collegial conversation about University-specific indicators that will cast York in the best possible light and maximize our funding while influencing system-wide metrics.

VII.   Recommendations as the Dialogue Unfolds

The Glendon submission stressed 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; and 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." APPRC agrees with both of these propositions.

Other advice received includes the following:

- conduct the exercise judiciously and circumspectly to avoid inequitable treatment of units and faculty members 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
- 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

- develop a discipline-specific list of outputs in consultation with other universities since others may also benefit from a listing; such collaboration may impact on the provincial government
- York (or York in conjunction with other Ontario universities) should consider developing its own proprietary database of research outputs
- since York's (public) faculty research profiles are a useful source of data[4] [therefore] make the online system made more user-friendly and actively solicit participation in these research profiles; if it is clear to faculty members that their participation will help the University or their individual units, participation rate will increase
- track graduate student scholarships, conference presentations, and the number moving to postdoctoral fellowships
- consider converting TA funding to scholarships that are recognizable and important to include on CV's and resumes
- 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
- 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
- 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

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[4] 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.

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.

- 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.

- 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

- 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.

- 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.

- 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)

- take 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.

- afford 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).

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IX. Communication to Faculty Councils

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

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[1]Commonly 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?