Overview
Local Research/Creative Activity Metrics Project

Research/creative activity metrics are data regarding faculty productivity in research/creative activity. They are specific to each discipline and sub-discipline and the data to be collected are specified by the faculty in the field. These "local metrics" are intended to provide a faculty-determined set of measures that describe the collective work of faculty members in a department or unit, both quantitatively and qualitatively. It is clear that no single standard or number applies across all fields. Whatever metrics are produced will not be reducible to either a single standard or a single number.

Phase One: Data Definitions

Departments/units will prepare an inventory of the information that will be collected by the department for its discipline(s) and subdiscipline(s). This inventory will include details that capture the quality and quantity of research/creative activity carried out by members of the faculty and will be used to generate collective profiles of faculty activity in a given unit. Data regarding publications, grants, and other information typically reported on CVs will eventually be collected centrally and will be available to departments for use in departmental metrics. Some data collected may also reflect the results of the work of the faculty as a whole (e.g. department rankings in fields where there are rankings, graduate placement data where available).

Note that departments should develop data definitions that fit their disciplinary and professional fields. Not all disciplines have a clear set of top journals. Publication impact ratings may not be available or reliable in some fields. Others will recognize different sorts of publications as valid (translations, active participation in blogs and so on). As a result, there is no universal standard for which data should be collected.

June 1—Units provide draft inventory of data to be collected
July—OtP team evaluates and comments on data definitions based on the standard listed below.
October—Feedback on units' data definitions is sent to Deans.
December—Feedback on units' data definitions sent to department/unit heads for review by the faculty.
February 15—Revised data definitions and comments due with Deans and Office of the Provost from departments/units.

Data Definition Review Standards.

Overall, we endorse the best practices identified by the *Leiden Manifesto* (2015, see attached)[1] where it applies to proposed metrics and the processes of data collection and reporting. While these principles are intended to apply to metrics collected for scientific research, they also can provide guidance for metrics projects that consider research in other fields. The Leiden principles are included below with the exception of principle 7, which refers to the use of data for the evaluation of individuals.

[1] The following is from the website devoted to the Leiden Manifesto. "Five experts led by Diana Hicks, professor in the School of Public Policy at Georgia Institute of Technology, and Paul Wouters, director of CWTS at Leiden University, have proposed 10 principles for the measurement of research performance. The Leiden Manifesto for Research Metrics published as a comment in *Nature*.

1. **Quantitative Data**. Each unit's data definitions should include some quantitative information regarding faculty research production. Exactly what is counted will differ among units. Quantitative data may be specific to the unit but in some cases may also provide for external comparisons. In every case, the quantitative data should be of the sort that can be collected year after year in order to provide an ongoing indication of the unit's research production.

2. **Qualitative Data**. At minimum, each unit should identify some data that will indicate the relative quality of the work produced. These data might include specifying leading journals in a field (where publishing in these journals is a proxy for the quality of the work published). Journal and publisher quality information may be from external sources (e.g. Journal Impact Factor (JIF), see https://guides.library.oregonstate.edu/metrics/impactfactor), disciplinary lists (e.g. https://scholar.google.com/citations?view_op=top_venues&hl=en&vq=soc_politicalscience), identification of peer-reviewed journals, or by direct department designation. These data might also include average h-indices for a unit or other means of providing an average or aggregate assessment of research in the unit. Identifying invited talks or performances as distinct from work submitted for review might also serve as an indicator of the quality of the work carried out by the department.

3. **Other research impact/visibility.** Units may identify other ways in which research/creative activity in their fields have a qualitative impact, e.g. public performances, projects that have explicit impact inside or outside the academy, and other forms of public engagement. Such metrics would aggregate this sort of work at the unit level, though data collection may require that information about these efforts be collected as anecdotal information.

4. **Altmetrics**. See https://pitt.libguides.com/Altmetrics and http://www.metrics-toolkit.org. While most units have not yet proposed the use "altmetrics," units should consider them over time. Altmetrics provide alternate ways of collecting data about citation and visibility of research conducted within a unit. These metrics include mentions of researchers and publications on blogs and online publications that are not indexed as standard disciplinary journals are. Materials considered can include datasets, videos and other "non-traditional" materials produced by faculty as part of their research/creative efforts. Altmetrics are NOT required but may be selected by units if they decide that this information is helpful in understanding their work and success.

5. **Non-traditional venues**. Units are encouraged to consider adding non-traditional venues as indicators of the amount, quality and impact of unit research. Publication in prominent blogs, video and audio presentations available on the internet, work with community groups and so on may be included in the data collected to show the overall productivity of a unit. Non-traditional venues are NOT required.

6. **Relevant Leiden Standards:**

    a. **(Principle 1) Quantitative evaluation should support qualitative, expert assessment.** Data definitions that refer to quantitative measures (such as numbers of journal publications or performances) must include qualitative data (see 2 above).

    b. **(Principle 3) Protect excellence in locally relevant research.** Data collected should reflect any specific areas of research/creative activity that mark the strengths of the

unit. (If, for example, a unit has strengths in a particular subfield, then the data collected should indicate ways of assessing that strength by including the best journal(s) in the subfield.)

c. **(Principle 6) Account for variation by field in publication and citation practices.** This is in general addressed by the unit-specific definitions, but if there are significantly different aspects of the field that use different sorts of publications and citations, these should be noted at the unit level (e.g. a unit that includes both article-based subdisciplines and book-based subdisciplines).

Phase Two: Data Collection

Data collection will be primarily the responsibility of the department/unit. However, the Office of the Provost will begin to systematically collect faculty CV information in the future to support tenure, promotion, and post-tenure reviews and to maintain up-to-date information about the wide variety of faculty achievements that directly impact the university's standing and reputation. Units will have access to data within the unit to support the preparation of the unit-level annual reports. Additional data, including unit-level results (e.g. professional certification exam-passing rates, the impact of collective outreach programs) will be collected at the unit level.

Relevant Leiden Standards governing data collection:

1. **(Principle 4) Keep data collection and analytical processes open, transparent, and simple.** CV information will be used, as it is now, for faculty reviews. It will also be available to units for purposes of unit reports. Other data (department ranking information, exam passage rates and so on) collected within a department should be of the sort that is well understood by and accessible to the faculty.

2. **(Principle 5) Allow [faculty] to verify data and analysis.** Faculty will have the opportunity to verify the initial input of CV data and will be responsible for updating their information going forward. Units will be able to verify the aggregate data as they see fit.

3. **(Principle 10) Scrutinize indicators regularly and update them.** Data definition and collection will be part of an iterative process that will involve an annual call to revise metrics in light of changes in the field or unit. These changes may be proposed as part of the annual unit report in order to affect data collection in the following year. Changes must be approved by the provost's office.

Phase Three: Research Reporting

Research/creative activity metrics will be collected annually in a "State of the Department/Unit" report to be provided to the Office of the Provost. Quoting the description developed by Ulrich Mayr, Psychology, "Authored by the department head (and with help from the executive committee and committee chairs), the report will present a concise summary of past-year activity with regard to all relevant quality dimensions (e.g., research, undergraduate and graduate education, diversity, outreach, contribution to university service, etc.). Importantly, the account would marry *no-thrills, basic quantitative metrics with contextualizing narrative*. For example, the section on research may present the number of peer-reviewed publications or acquired grants during the preceding year, it may compare

these numbers to previous years, or—as far as available–to numbers in peer institutions. It can also highlight particularly outstanding contributions as well as areas that need further development."

The resulting report will include four parts: (1) a short summary reporting the general results of work in the various categories identified by the department in the definitions process; (2) a concise narrative connecting research/creative activity data to contextual information about the department, changes in work over the previous year and so on; (3) a narrative addressing non-research work of the department including data about undergraduate and graduate programs and information about faculty service as available; (4) an appendix that lists all the results of the department's research/creative activity (e.g., individual articles, books, grants, etc.). This would be similar to a departmental "CV" that covers the previous year.

First "State of the Department/Unit" reports due December 1, 2020 (annually thereafter).

Leiden Standards Governing Reports:

1. **(Principle 2) Measure performance against the research missions of the institution, group or researcher.** Performance measures should be relative to the mission of the unit and the university and supported by the collected data. Such measures might include external comparisons where data is available. Where it is not, the measures should place the present research/creative activity in relation to past activities and to future research goals where they have been articulated. Since there are significant differences among units, comparison of units within the university are neither expected nor likely to produce useful results.

2. **(Principle 8) Avoid misplaced concreteness and false precision.** Annual reports should represent the data and their implications as clearly as possible. Best practices use multiple indicators to paint a pluralistic picture and do not seek to eliminate all ambiguity and uncertainty.

3. **(Principle 9) Recognize the systemic effects of assessment and indicators.** A discussion about whether the metrics established for a unit should be revised can be included as part of the annual report (see point 3 above under Data Collection). While defined metrics seek to explain what the unit and the fields represented in the unit understand as excellence in research/creative activity, metrics can, once established, incentivize some types of work in unexpected ways that may result in narrowing or lowering the quality of the unit's work. As a result, units and the provost's office must be attentive to change over time in faculty productivity in relation to general commitments to maintain originality and impact in all aspects of research/creative activity.

Appendix A
What, Why and How of University Metrics

What?

Metrics ("indicators," standards of measurement) as used here include two categories of information: *Operational* and *Mission*. The former are intended to provide information about faculty teaching workload and departmental cost and efficiency. The latter provide information about how well we are achieving our basic missions of teaching and research.

Operational metrics are aggregated at the college, school and department level. They include, for example, SCH and majors per TTF and NTTF, number of OA and classified staff FTE per TTF, average and median class size, and degrees per TTF.

Mission metrics include data regarding undergraduate and graduate education (including serving diverse populations) and, still under development, data regarding faculty research and creative work.

Undergraduate data describe the undergraduate program in each college, school and department in terms of number of majors and minors, demographic information, major declaration patterns, graduation rates, and time to degree.

Graduate data describe the graduate program at the college, school, department, and degree level in terms of completion rate and time to degree, demographic information, selectivity of admission rates, information regarding student experience.

Research metrics (under development) are data regarding faculty research/creative productivity. These are specific to each discipline and subdiscipline where the data to be collected are specified by the faculty in the field. These "local metrics" are intended to provide a faculty-determined set of measures that describe the collective work of faculty members in a department or unit, both quantitatively and qualitatively. It is clear that no single standard or number applies across all fields. Whatever metrics are produced will not be reducible to either a single standard or a single number.

It is important to note that research metrics will be revisable over time in response to changes in departments, disciplines and subfields, information available, and as we learn what are reliable and less reliable indicators of progress. The mode of reporting (also still under development) will likewise be revisable.

Note that PhD completion rate and time to degree are also reported by the AAU Data Exchange at the degree program level and so UO information can be compared with other degree programs at other AAU institutions.

Other graduate data is currently being collected through the AAUDE exit survey so that over the next several years sufficient data will be available to report PhD initial placement, graduate student research productivity (represented in publications), and data regarding student assessment of graduate advising support. These data will be available by degree program across all reporting AAU institutions.

Information about faculty service is not currently collected. Since service is a vital part of faculty work, we hope to develop a means of defining and collecting service data so that this can also be reported at the college, school, and department levels.

Why?

There are at least three reasons that operational and mission metrics will be collected. The information they provide will help with (1) external communication and accountability, (2) internal communication, continuous improvement, and accountability, and (3) the allocation of limited resources.

Public research universities have a need for external communication that provides an account of their work to students and their families, the public, government agencies, disciplines, and other constituencies. While the university already attempts to be accountable as a whole to its mission, it also has some obligation to be accountable in its parts. Diverse academic units support the mission of the university in different ways. A general accounting of the work of the university (which necessarily attempts to reduce the university's work to a few standards) is insufficient to the latter task and so the ability to account for work accomplished at the department or disciplinary level is vital to ensure that our constituencies understand the value of both the whole and its parts.

Anecdotal information and "storytelling" are part of this effort, but so are systematically collected data. Whatever information is used to promote communication needs to be presented with explanatory information so that others will understand the differences between programs and what constitutes success. Data for external communications (such as student success data currently available to the public) must be limited to aggregated information and data sets that are large enough to ensure anonymity. Research metrics are important because they provide a picture of what our faculty do, especially in those programs whose work and expected results are less familiar to the wider public, legislators, and other external audiences.

Internal communication is likewise essential both in order to ensure that university and college leadership understand the work done by faculty and so that departments themselves have a shared understanding of their work, needs, and the meaning of success. Communication with leadership needs to involve both quantitative information that provides some idea of how much work is common in a particular field and how quality is defined for that field. Some of this information (e.g. student success data) is common enough across disciplines to suggest a general conception of quality using quantitative proxies (e.g. graduation rates), while other quantitative data (e.g. class size, research productivity) requires more explanation and narrower application.

Internal communication also concerns communication with faculty in helping make department expectations for teaching and research clear and transparent. While review standards are often obscure, faculty nevertheless need a shared sense of what it means to be successful in aggregate in their fields. The development, implementation, and regular review of metrics at all levels by faculty and administrative leadership provides a means to foster a shared vision of success; the ability to identify goals, opportunities, and problems; and determine how best to move forward.

Resources at every university are limited and allocating them requires both good information and good critical deliberation. Past budgeting systems have relied on formulaic systems that depend on reducing unit quality to two or three indicators for all programs (e.g. SCH, number of majors, number of degrees). Such an approach, when fully implemented, excludes aspects of department success that are not

captured in such indicators. Rather than the approach taken in recent years, which does not include faculty input, the current budget model aims to implement a deliberative model informed by both quantitative and qualitative data.

How?

How metrics figure in the allocation process will vary. In the Institutional Hiring Plan, the full complement of metrics is to be considered in deciding where particular TTF lines will be created. The IHP involves a structured review process of department-generated proposals, vetting by the school or college, review by the Office of the Provost, a faculty committee, and the deans' council, with the final decision by the Provost.

In allocating GE lines, data regarding teaching needs is combined with graduate student success data and (when available) research data. Decision-making takes into account enrollment goals, student success data, other program data, and regular meetings with deans and Directors of Graduate Study.

The block allocation process (that establishes the base operating budget for each college and school) considers operational metrics and past budget allocations. Block allocations are proposed by the Office of the Provost and negotiated with the individual schools and colleges.

The strategic initiative process will consider in part data relevant to the proposals at hand (e.g. undergraduate success data for proposals for undergraduate programs, graduate success data for proposals related to new graduate program development). The initiative process involves a faculty committee with recommendations to the provost.

In general, use of the metrics will be guided by our goal to advance the UO as a liberal arts R1 university. This means that while there are other goals to be met (see below), meeting them must take into account the character and purpose of the UO as a liberal arts university.

- We should always be working towards improvement.
- Undergraduate student educational needs must be met.
- PhD programs must be sustained and improved both in terms of enrollments and placement.
- Diversity and inclusion must be fostered in the faculty, student population, and academic programs.
- Excellent programs should be supported and expanded where there is a demonstrable possibility of expansion.
- Less successful programs should receive resources to support evidence-based plans for improvement consistent with the other goals.
- Programs that are successfully meeting their own and university goals should be supported to continue that success.
- Programs that are unsuccessful and do not have workable plans for improvement may be eliminated according to the HECC and CBA guidelines.