Frequently Asked Questions for Academic Analytics

What is Academic Analytics?

Academic Analytics is the creator of the faculty scholarly productivity database (FSP) and faculty scholarly productivity index methods for evaluating research. The FSP database and index are based on a set of statistical algorithms which measure the annual productivity of faculty on several metrics including: publications (books and journal articles), citations of journal publications, federal research funding and awards and honors. Academic Analytics worked extensively with Association of American Universities (AAU) institutions during the development of the model.

What and who are included in Academic Analytics?

Currently, Academic Analytics contains data on more than 9,000 Ph.D. programs from 385 institutions. Over 150 institutions provide their faculty list directly to Academic Analytics for use in their database. The database contains data organized into 172 disciplines (6 digit CIP codes) which are categorized into 11 broad fields (2 digit CIP codes). Approximately 270,000 faculty names are currently in the database.

What research funding data are available through Academic Analytics?

The Academic Analytics database includes grants from 13 federal agencies and 2 nonfederal funding sources (American Heart Association; American Cancer Society) matched to the principal investigator at the lead institution. Additionally, UofL can request the inclusion of grants from foundations and other sources with the caveat that these data are publically available.

What types of book chapters are available through Academic Analytics?

Academic Analytics has a beta version of the application that includes department and program book chapters.

What are the sources of the journal and book chapter data available through Academic Analytics?

- Journal articles are retrieved from SCOPUS, the world's largest abstract and citation database, (http://www.info.sciverse.com/scopus/).

- Book publications are retrieved from Baker and Taylor from (http://publiclibrazy.btol.com/).

- Foreign language book publications (not contained in Baker and Taylor) are retrieved from the British Library (http://www.bl.uk/) and the Library of Congress (http://www.loc.gov/index.html)

NOTE: UofL can recommend specifics journals be added to the Academic Analytic database. For a scholarly journal to be included, the journal needs to meet the following four criteria:

1. *Contain peer-reviewed articles that are distinguishable from other content (e.g., book reviews, obituaries, and letters to the author).*
2. *Be published on a regular, ongoing basis.*
3. *Assigned digital object identifiers (DOIs) associated with each unique article.*
4. *Currently available in press (i.e., not defunct nor a merged/split title).*

Why has this initiative been instituted?

The motivation to acquire Academic Analytics was to provide administrators, academic deans, department chairs and faculty with national benchmarking data regarding faculty productivity at the department and program level. The benchmarking data provided by Academic Analytics can be used by the department and/or program for academic and strategic planning as well to respond to questions asked during the academic program review process.

What data will be provided to Academic Analytics?

The data provided to Academic Analytics consists of a list of faculty members to be included in their database. UofL has provided a list of faculty to Academic Analytics since 2009, before our acquisition of the software. Academic Analytics requests faculty lists from hundreds of institutions, regardless of their use of the software. In the absence of a faculty lists from the institutions, staff from Academic Analytics use faculty names provided on various university departmental websites. To ensure the accuracy of UofL's data within the database, the decision was made to provide an official list. Each academic unit is provided the opportunity to validate its unit's data before submission to Academic Analytics.

What will be done with the data provided by Academic Analytics?

The data provided by Academic Analytics will be used as one of many sources of data to fully contextualize how UofL's departments and programs compare to similar programs at like institutions. The software allows users to create custom benchmarking groups for comparison purposes. The peer selection tool allows institutions to select programs immediately above and

below their own for comparison. The reporting functionality allows users to identify 'strengths' and 'weaknesses' of each program based upon 108 variables. The data are rank ordered in a list which allows comparisons of schools and proximity. It also allows the departments/program to adjust the comparative weights to ensure that the scholarly productivity metrics reflect department/program's priorities. Several metrics under each weighting category exists and users can 'lock' their own weights into the database for future reporting. Data for institutions (and any peer selected institution) can be recalculated based upon the user defined weights.

UofL does not have access to faculty-level data until 2016. An advisory group with representatives from each academic unit was formed in summer 2014, once UofL formally acquired the product. This advisory group serves to identify and suggest uses for data from Academic Analytics so that the implementation is systematic, contextualized and thoughtful.

How were the default weights within the Academic Analytics portal determined for each productivity measure?

The weights presented in the 2010 NRC Survey of Faculty Opinion were applied to the 59 disciplines that Academic Analytics and the 2010 NRC study had in common, and then modified as described below. For the remaining 113 disciplines measured only by Academic Analytics (total 172), the median value of the weights for the disciplines in the broad field (AA Level 3) were calculated based on the NRC study's "known" disciplines, and those weights were applied to the discipline (AA Level 1), and then modified as described below.

A proprietary series of thresholds is applied to the data for each academic discipline to determine whether to include each of the categories of variables in the calculation of FSPI (e.g., in Physics, books are not included in FSPI; in English, grants are not included in FSPI, etc.). Following this procedure, steps are taken to assign weights to each variable:

- If honorific awards are included in the calculation of FSPI, they are given a weight of either 10% or 5% based on their frequency in the discipline.

- If federal research grants are included in the calculation of FSPI, they are given a weight of either 20% or 10% of FSPI based on their frequency in the discipline. The total weight applied to the general category “Research Grants” is then divided by the number of Research Grants metrics that are used in the weighting scheme and that percentage is applied to each Research Grants metric (e.g., if the Research Grants weight is 10% and there are two Research Grants metrics, then each metric is weighted at 5%).

- After the percentages for awards and grants is known, the remaining percentage that can be allocated to books, journal articles, conference proceedings and citations is calculated (e.g., if awards are worth 10% and grants are worth 20%, then there is 100% - 10% - 20% = 70%

remaining to be distributed among books, journal articles, conference proceeding and citations).

- If published books are not included in the calculation of FSPI, the remaining percentage is distributed between publications variables and citations variables based on the NRC survey results.

- If published books are included in the calculation of FSPI , then the weights for books, journal articles, and conference proceedings from the NRC survey are applied.

What customizations can be done to the default reports within the Academic Analytics portal?

The application allows for the creation of customized peer groups, customized weightings for each productivity measure, as well as the ability to customize weights for specific journals within a discipline.

How was the need to pay for an outside service to measure faculty productivity identified? Who identified it?

The acquisition of Academic Analytics was recommended to UofL Senior Leadership and the chief academic officers by the Vice Provost of IR, Effectiveness and Analytics. It is nationally recognized as a source of benchmarking data to monitor our institutional trajectory to become "a nationally recognized metropolitan research university" and member of the Association of American Universities (AAU). These objectives remain as priorities within the 21st Century University Initiative. The decision to move forward was made in direct consultation with the academic deans. Additionally, institutional feedback was obtained from the University of South Florida and the University of Cincinnati.

Was the plan to quantify and measure faculty productivity through a paid service presented to the faculty before deciding to move forward?

Several conversations were held with administrators and academic deans as UofL assessed whether to acquire the software. The intention of acquiring Academic Analytics was not to evaluate the performance of individual faculty as a function of the tenure and promotion process; however, it is to provide nationally normed data about faculty and relevant metrics that can be used for benchmarking for comparison of academic departments and programs.

How much is/will the university be spending per annum for the Academic Analytics service?

UofL has committed to a 4-year contract costing approximately $60,000 annually with an additional cost when faculty counts are included beginning in 2016. Funding will be provided by the Provost Office and the Office for the Executive Vice President for Research that accounts for 60% of the yearly subscription. The remaining percentage was allocated to each academic unit based upon the relative percentage of doctoral programs offered by the unit.

Who should I contact if I have questions regarding Academic Analytics?

An email service account dedicated to Academic Analytics has been established. This email service account is owned by the Office of Institutional Research and Planning. Questions about Academic Analytics should be forwarded to academic.analytics@louisville.edu.

Why was a new Analytics Division created in the OAPA?

The Analytics Division within OAPA is organizationally housed within the Office of Institutional Research and Planning (IRP). The Analytics Division was established, in part, to respond to many data requests that resulted from the 21st Century Initiative. It is a formal recognition of the need for more complex statistical analyses in response to data requests that focus on proactively completing informing analyses. The implementation of Academic Analytics is one of several initiatives that will fall under the newly created Analytics Division.

What precisely will the Analytics Division be responsible for?

The Analytics Division will be completing higher-level analyses in response to data requests by academic and administrative units. Additionally, the implementation of Academic Analytics and the upgraded version of Blackboard Analytics will fall under the purview of the Analytics Division.

What are the costs per annum of the Analytics Division?

There are no additional costs to the university for the Analytics Division. Resources of current IRP staff are being re-prioritized to allow for the completion of more sophisticated statistical analyses. IRP has several analyses that are completed on an annual basis for various constituency groups. These groups have requested follow-up analyses that are more in-depth and complex. The reallocation of resources allows IRP staff to complete these more informing and complex analyses.