The 761st meeting of the Faculty Senate will feature a presentation, five Council and Committee Reports, and some ongoing business.

Presentation by Professor Richard Bogartz on “Budget Allocation: What the Algorithm Does”

Senator Bogartz is giving this presentation in his individual capacity, drawing on his experience as a member of the Joint Task Force on Resource Allocation. He showed it to JTFRA last spring, and the Rules Committee believes showing it to the Faculty Senate will help increase understanding of what the algorithm\(^1\) contains and the sorts of information using it can provide to those engaged in budgeting decisions. The algorithm is one of three related components providing one stream of information for budgeting: 1) input numbers representing dollars coming to campus from state appropriation, tuition and fees, externally-provided research funds, and other sources, 2) an algorithm applying information about activity levels in each unit of campus to those numbers, and 3) output numbers indicating how dollars might be allocated among the various units to reflect changes in these activity levels. The inputs, algorithm, and outputs have typically been displayed on an Excel Spreadsheet, but they can also be presented with other visualization tools. Senator Bogartz’s version uses the R statistical software, and presents a way of visualizing and playing with the same sorts of alternate scenarios that can be implemented in an Excel spreadsheet, but in a form that might be more understandable to people with little experience of using Excel for budget purposes. Like an Excel spreadsheet, the R-based visualizations allow casting alternate scenarios by changing the activity level algorithms, changing the input numbers as estimates of future revenue change, or both.

Applying the algorithm does involve “monetizing” activity – expressing units of activity (such as amounts of external grants, dollars per major, and dollars per student enrolled in a particular department’s classes) in dollars. However, the campus has been tracing activity for years and shifts in activity have often influenced budget decisions. Monetizing is simply a more formalized approach that casts input numbers, algorithm numbers, and output numbers in the same unit of measurement.

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\(^1\)This analytical device has been called “The Model.” Technically, it is an algorithm, a process or set of rules to be followed in calculations or other problem-solving operations. A model is a mathematical, logical or mechanical representation of a relationship, theory, process, system, or sequence of events that summarizes interactions among parts of a physical system or set of human interactions. A model can be used to summarize or to further study the system or set of interactions. Models include concepts and statements about relationships between elements; non-mathematical models do not include any rules for calculation.
As we benefit from Senator Bogartz’s initiative, we need to keep two points in mind.

1. His display is based on an earlier version of the algorithm so what he shows will not correspond in every detail to the most recent version. The algorithm is still undergoing refinement in light of experience in FY 2016 (July 1015-June 2016). However, the ways one can visualize alternative scenarios using the R packages Senator Bogartz is using are the same whatever the details of the algorithm.

2. Views of how the use of algorithm should influence budget decisions is also evolving with continuing experience. Using the algorithm provides one set of the information that informs budgeting decisions. Recall a key point made in the reports from JTFSO and JTFRA last May: the resource allocation system is guided by four primary values: transparency, consultation, alignment of resource allocations with trends in activity, and alignment of resource allocations with the campus values articulated through the planning process. The JTFSO and JTFRA reports outlined a budgeting process in which producing budget information using the algorithm would occur at the starting point of the process, with final allocations of resources made in light of considerations of quality, capacity, and the common good. That vision of the allocation process might be arrow diagrammed like this:

\[
\text{Data + Algorithm} \quad \text{Output} \quad \text{Reflection, Consultation} \quad \text{Allocations}
\]

\[
\begin{align*}
\text{(revenue estimates)} \\
\text{(activity levels)}
\end{align*}
\]

However, other ways of using the algorithm in a transparent and consultative resource allocation process are also appropriate, and additional ideas about how to institutionalize the budgeting process will be examined as more experience is gained. That said, it seems quite clear to me that the budget process will not become an unmediated use of the algorithm to set final allocations, a version of budget process that would be captured in this different arrow diagram:

\[
\text{Data + Algorithm} \quad \text{Model Output} = \text{Actual Allocations}
\]

\[
\begin{align*}
\text{(revenue estimates)} \\
\text{(activity levels)}
\end{align*}
\]

Professor Bogartz’s presentation is designed to help us understand how the algorithm works, improving our comprehension of using it in the budgeting process.
Announcements and Question Period

We will provide the usual opportunities for exchanges of information and opinions through the Announcements and Question Period.

Annual Reports

We will continue our catching up on Annual Reports, at this meeting receiving reports from the Academic Priorities Council, the Health Council, the Student Affairs and University Life Council, the Rules Committee, and the University Writing Committee.

Bylaw Changes

Changing the Bylaws requires that the proposed amendments be read at three meetings, with the vote on whether to adopt being taken at the third meeting.

This second reading of the proposed Bylaw changes continues our catch-up on changes in administrator titles. There is one substantive change: a proposal to add the newly-created position of Associate Provost for Student Success as an ex officio member of the Status of Diversity Council on grounds this person will be involved in an array of activities intended to foster diversity and inclusion among the students. (The title is given incorrectly as Vice Provost in the current version of the document.)

New Business: Course Approvals

The Graduate and Academic Matters Councils have begun reviewing course proposals coming within their respective charges, and are recommending some for Senate approval.

Old Business: Amendment to the Nominating Committee Report

The Nominating Committee makes it main report in late spring each year, proposing faculty members to fill Council and Committee seats about to become vacant. Life is less neat than organizational schemes; often it is necessary to make additional changes later. We deal with them through amendments to the main report, as we will be doing again on Thursday.

MJ Peterson
Secretary