

ABSTRACT: 2014 ELAM Institutional Action Project Poster Symposium

Project Title: Valuing research, making tough decisions

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Collaborators: AAMC, RAND-Europe, Washington University Strategic Planning office, Washington University Becker Library, Washington University Institute for Clinical and Translation Sciences.

Background, Challenge or Opportunity:

Many Universities and Medical Schools have research centers, which are supported centrally. Initiating these centers can be exciting, but making decisions to increase, maintain or reduce support or to sunset a center can be very difficult. In addition, justifying the investment to others at the institution can be challenging. Many institutions have used extramural funding to evaluate the center's contribution to the research mission, but a more robust and comprehensive evaluation of the center's contribution to the research mission would be a useful tool.

Purpose/Objectives:

The objectives are to develop and implement a set of evaluation tools that we can use to assess the research centers and make institutional decisions.

Methods/Approach:

I am working with several other groups to understand and select the appropriate metrics. The AAMC is interested in developing improved methods for evaluating research, and has engaged the RAND group, and I am part of their basic science evaluation team on this project. The Washington University Institute for Clinical and Translational Science is working towards improved metrics on evaluating research, and I am also working with them. The WU Becker library has extensive experience with biblio-metrics and network mapping and they have agreed to work with me as well. The first step is to identify the audience for the evaluation, and determine what information would be most useful to them. I am doing this through interviews that are currently ongoing. The next step will be to determine the metrics to apply to our centers, and collect and evaluate the data.

Outcomes and Evaluation Strategy:

This project is still ongoing. I have assembled a group of interested collaborators, and a determined a set of metrics that could be applied to the research centers. Each of the research centers is somewhat unique, and different metrics may be more applicable to some than to others. The next steps are to complete the stakeholder interviews to determine which metrics to use, assemble an evaluation team that will evaluate the research centers, and develop a report that will be used by the leadership of the school and the university to determine future resource allocations for the centers. I will evaluate this process by presenting it to our executive faculty at the School of Medicine and to our Council of Centers and getting their feedback on whether the evaluations are fair and reasonable.

Collaborators:

Linda Reimann, Karen Smith  Joint Office of Strategic Planning

 Institute of Clinical and Translational Sciences
Brad Evanoff, MD

Paul Schoenig  BERNARD BECKER MEDICAL LIBRARY
delivering knowledge, informing decisions

 RAND EUROPE Sue Guthrie and Steven Wooding

Anne Berlin, Steve Heinig  AAMC
Tomorrow's Doctors, Tomorrow's Cures®

Background Challenge or Opportunity:

Many Universities and Medical Schools have research centers, which are supported centrally. Initiating these centers can be exciting, but making decisions to increase, maintain or reduce support or to sunset a center can be very difficult. In addition, justifying the investment to others at the institution can be challenging. Many institutions have used extramural funding to evaluate the center's contribution to the research mission, but a more robust and comprehensive evaluation of the center's contribution to the research mission would be a useful tool.

At Washington University School of Medicine we have created eight Interdisciplinary Research Centers. Evaluating these research centers for the purposes of decision-making on whether to continue investing School of Medicine resources in each of the centers has been challenging. These centers range in age from six months to ten years old and in size from three to twelve research groups. The centers are faculty driven, non-departmental, and are meant to be nimble in response to research imperatives. The first and oldest center (Center for Genome Sciences and Systems Biology) was an experiment. Five years ago, it was decided to continue this experiment, and a competition was held to have four additional centers. Over the past four years, three more been created through an approved process with presentation and approval of a proposal to the executive faculty and Dean. These centers have been provided with operating funds and research space. The primary faculty that occupy the centers are drawn from existing faculty as well as new recruitments in collaboration with departments. Importantly, the centers are not permanent, and it has been made clear that they will be sunsetted if they are no longer serving a valuable function. They are reviewed every year, and will be fully evaluated every five years. However, determining the metrics and evaluation criteria has not been completely set. We currently invest over \$2.6M per year from the Dean's office in these centers, and Departments and the Hospital also contribute about \$500K to the centers. We have also invested many millions in building new, state-of-the-art collaborative research space for the centers.

We must be able to make nimble and rational decisions about funding the centers that are defensible and perceived by the wider university community as fair.

Purpose/Objectives of the project:

The objectives of this project are to develop and implement a set of evaluation tools that we can use to assess the research centers and make institutional decisions. These tools should include but go beyond grant funding and publications. The centers should be adding value to the institution in multiple ways, including:

- increase collaboration
- engage in highly novel research
- increase faculty retention
- provide leadership opportunities for senior faculty
- influence funding agencies and impact funding opportunities
- increase private donations and gifts
- attract high quality faculty recruits and trainee recruits
- impact patient care and outcomes

It is recognized that not all centers are equal, and cannot be directly compared to each other. Therefore a complex set of metrics will need to be used to evaluate the centers. The audience for the analysis includes the Dean, the Chancellor, the Associate Vice Chancellor and Associate Dean for Administration and Finance, the Department Heads, the faculty and trainees in the centers, as well as the faculty at large.

Methods/Approaches:

I have partnered with our office of Strategic and Financial Planning, the Becker library at Washington University, the Institute for Clinical and Translational Sciences, the AAMC, and the Rand Corporation to work through various methods of research evaluation. The AAMC is interested in developing improved methods for evaluating research, and has engaged the RAND group, and I am part of their basic science evaluation team on this project. The Washington University Institute for Clinical and Translational Science is working towards improved metrics on evaluating research, and I am also working with them. The WU Becker library has extensive experience with biblio-metrics and network mapping and they have agreed to work with me as well. The first step is to identify the audience for the evaluation, and determine what information would be most useful to them. I am doing this through interviews that are currently ongoing. The next step will be to determine the metrics to apply to our centers, and collect and evaluate the data.

These metrics and evaluation methods fall into several main categories¹:

- Bibliometrics – which includes publications, citations, collaboration networks
- Economic analysis – which could include return on investment
- Peer review – which could include external review panels or site visits
- Data mining and data visualization – this could include faculty retention rates, trainee numbers and outcomes
- Publication of white papers, conferences, membership on NIH councils and other advisory boards.

We have collected data on our centers going back 5 years, including publications, grant funding, collaborations, trainee numbers and outcomes, recruitments, interactions with federal and other funding agencies, outcome of pilot studies, seminar attendance, core facility and space utilization, patents, white papers and advancements in clinical practice.

A proposal will be made to the Dean, to the Executive Faculty, to the Research Affairs Committee, and to the Council of Centers at Washington University School of Medicine, and they will have the opportunity to provide feedback on the proposed metrics and analysis proposal.

By shifting resources and responsibilities, I have been able to free up a position in my office for a research analyst who will work closely with me, the Becker Library, the Finance Office, the ICTS and the Office of Strategic and Financial Planning to do the analyses. This description for this position is currently being generated.

¹ Guthrie et al., (2013) Measuring Research, A guide to research evaluation framework and tools. RAND EUROPE

Outcomes/Evaluation strategy:

It is still too early to show outcomes or to evaluate this project, since it is still in progress. We will do the analysis, and provide recommendations for continued funding to the Dean and the Executive Faculty at Washington University. The project will be deemed a success if we are able to generate recommendations that are not merely a continuation of the status quo and we are able to convince the Dean and Executive Faculty that the recommendations generated through this process are thoughtful and valid and the recommendations are accepted.

Discussion:

This project will continue for at least another year, as we complete our interviews, develop metrics, present the proposal, hire the research analyst, do the analysis and develop recommendations. This process has resulted in a higher awareness of our centers, and additional conversations about research evaluation. It is likely that this process will also be more broadly applicable, and we may be able to apply the process and some of the metrics to other units with the school, including core facilities and departments.

Summary:

This project is still ongoing. I have assembled a group of interested collaborators, and a determined a set of metrics that could be applied to evaluate our eight interdisciplinary research centers. Each of the research centers is somewhat unique, and different metrics may be more applicable to some than to others. The next steps are to complete the stakeholder interviews to determine which metrics to use, assemble an evaluation team that will evaluate the research centers, and develop a report that will be used by the leadership of the school and the university to determine future resource allocations for the centers. I will evaluate this process by presenting it to our Dean, executive faculty at the School of Medicine and to our Council of Centers and getting their feedback on whether the evaluations are fair and reasonable.

