

STAR METRICS Workshop Summary
Association of American Universities
October 25-26, 2011

On October 25-26, 2011, the Association of American Universities (AAU) held a workshop on STAR METRICS for Senior Research Officers. Nearly 40 institutions were represented at the workshop. Participants heard from scholars of science and innovation policy as well as speakers who addressed policy and political perspectives on how data from STAR METRICS might be used. Discussion focused on overarching concerns about STAR METRICS, plus specific pros and cons of Level I and proposals for Level II. The main point of consensus emerging from the workshop was that AAU should assemble a STAR METRICS advisory group consisting of interested Senior Research Officers, scholars, and perhaps other institutional representatives to continue to work closely with efforts to further refine STAR METRICS Level I and to develop STAR METRICS Level II.

The AAU held a workshop on STAR METRICS for Senior Research Officers on October 25-26, 2011. Nearly 40 AAU institutions were represented at the workshop. An opening address was given by Irwin Feller, Professor Emeritus of Economics at Pennsylvania State University. Feller put STAR METRICS in historical context and talked about both the promises and the perils of attempting to measure the return on federal investment in research. He also laid out a set of questions about efforts like STAR METRICS that he hoped would be useful to the discussion.

After Feller's address, the next panel provided perspectives on STAR METRICS from scholars who study research and innovation. Susan Cozzens, Professor of Public Policy at the Georgia Institute of Technology, highlighted the capacity of STAR METRICS to add a better understanding of the people who participate in the research process. This will help bridge the gap between funding sources (inputs) and knowledge produced (outputs). Jason Owen-Smith, Associate Professor of Sociology and Organizational Studies at the University of Michigan, expanded on the theme of people, discussing the potential of linking STAR METRICS with other data sources (e.g., census data on employment) to better understand connections between university research and societal outputs. He also showed examples of networks of people within universities linked by funding sources. Laurel Haak, Chief Science Officer at Discovery Logic – Thompson Reuters, spoke about the ORCID (Open Researcher & Contributor ID) platform as a way to assign a unique identifier to researchers, allowing people to be linked with funding sources and outputs like publications and patents, and removing ambiguity associated with common names or name changes. After this panel, speakers and participants raised concerns they had about STAR METRICS and discussed how to ensure that such a system was not overly burdensome, respected privacy, and was not misused.

The second day of the workshop began with a panel on policy and political perspectives on STAR METRICS. Adam Jaffe, Professor of Economics and Former Dean of Arts and Sciences from Brandeis University, followed up on the discussion from the day before, focusing on defining what STAR METRICS is and how it will assist universities in measuring impacts. He responded to some of the concerns that had been raised the previous day, pointing out that people who want to misuse or misrepresent data or criticize government investments in research and universities will do it regardless: there are already bad data and metrics out there that they can be utilized to make fallacious arguments. David Goldston, Director of Government Affairs at the Natural Resources Defense Council (NRDC) and former chief of staff of the House Science Committee, talked about some of the legitimate federal policy questions for which more data would be helpful. He also pointed out the importance of being precise

about what we expect STAR METRICS will deliver, and not overpromising. Kei Koizumi, Assistant Director for Federal Research and Development at the White House Office of Science and Technology Policy (OSTP), spoke about how STAR METRICS grew out of efforts to improve upon existing data collection mechanisms (e.g., National Science Foundation surveys). He noted that one of the benefits of such a system would be an enhanced capability for capturing the longer-term effects of federal research awards. Level II of STAR METRICS can focus on this by linking administrative records to other sources of data. His expectation is that Level II will take longer to develop and require more collaboration than Level I (which was focused primarily on Recovery Act funding and jobs created).

The next panel looked back at Level I of STAR METRICS. Julia Lane, Program Director of the Science of Science and Innovation Policy at NSF, talked about Level I in terms of the inputs and outputs, the burden it placed on institutions based upon a survey conducted by the Federal Demonstration Partnership (FDP), and how institutions have used the data produced. She emphasized the current opportunity for universities to help shape Level II. Susan Sedwick, Associate Vice President for Research at the University of Texas at Austin and current chair of FDP, spoke about the role played by FDP in overseeing the pilot project for Level I and what they had learned from the effort. She specifically noted that STAR METRICS may be helpful for responding to and managing growing reporting requirements being imposed on university research administrators. Richard Seligman, Associate Vice President for Research Administration at the California Institute of Technology, made the point that consistency and comparability between institutions, even in data reported to the federal government, are lacking. Engaging in STAR METRICS will allow universities to be proactive in terms of addressing existing and new reporting requirements, and avoid having to reinvent the wheel each time there is a new requirement.

The final panel focused on Level II, which is still under development and where university input is welcome and encouraged. Bill Valdez, Acting Director of the Department of Energy's Office of Diversity and Economic Impact, said that the 14 current data elements associated with Level I would be a very large part of the reporting necessary for Level II, which would be focus on linking these data with other sets and sources of information to try to begin looking at longer-term impacts. He noted that there are already a number of proof-of-concept projects for Level II underway – including the R&D Dashboard, a tool for analyzing research portfolios, and a federal researcher profile system called SciENCV – but these projects still have to be vetted by the university community. Susan Sedwick and Richard Seligman discussed the role that FDP will play in leading Level II demonstration pilots and laid out a number of ideas for Level II that came out of an FDP STAR METRICS workshop held in September.

The workshop concluded with a wrap-up session led by Steve Fluharty, Vice Provost for Research at the University of Pennsylvania, and Toby Smith, Vice President for Policy at AAU. Participants agreed that AAU should assemble a STAR METRICS advisory group consisting of interested Senior Research Officers, scholars, and perhaps other institutional representatives to continue to work closely with efforts to develop STAR METRICS Level II. This group, the upcoming December 12th workshop hosted by STAR METRICS, and the FDP demonstration will all help shape Level II. The focus of these efforts going forward will be to frame Level II as something that helps universities meet reporting requirements and document the results of federally funded research in an automated fashion with minimal burden. Such an effort must be based on the scholarship in science policy, cannot overpromise what it will be able to accomplish, and it should not be expected that such an effort will replace the need for judgment in decision-making. In addition, storytelling remains a key means of communication. Level II must help universities tell stories and illustrate examples, perhaps by providing a framework for such anecdotal information.