



Federal Demonstration Partnership Meeting

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STAR Metrics

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STAR Metrics: Data Consistency

STAR Metrics: toward uniform job classifications

STAR Metrics Job Classification
Technician/Staff Scientist
Faculty
Research Analyst/Coordinator
Post Graduate Researcher
Undergraduates
Graduate Students
Clinicians
Research Support

STAR Metrics: toward uniform job classifications

The human resource data, which along with federal award data form the basis of the STAR Metrics analysis is obtained from the databases of each participating university. A critical aspect of the employment data is the classification of jobs into eight discrete categories. The assignment of university employee classifications to a given category is performed by the STAR Metrics team and returned to the universities for their review. Universities have the option to change the assignments using the STAR Metrics portal or make assignments manually before submitting future employment data.

A comparison of STAR Metrics reports from various universities revealed a non-uniformity and ambiguity in the categories and nomenclature universities use to classify employees. This no doubt stems from the varied human resource databases used on campuses throughout the United States. In order to provide uniformity, the initial STAR Metrics guidelines were revised slightly and a recommendation made that using these revised definitions for job classifications, the universities manually assign the employment classifications in their databases to one of the eight STAR Metrics job classification categories.

STAR Metrics: toward uniform job classifications

Job Classification Guidelines

Following each of the eight STAR Metrics job classification categories listed below are guidance for placement of individuals into that category and examples of university employee classifications that are appropriate for the category.

Technician/Staff Scientist

All personnel who do not fit in another defined category and who are contributing to a research project (i.e., involved in supporting/generating or analyzing data)

- all technical staff including animal technicians, machinists, mechanics
- engineers, statisticians, machinists, mechanics (non-faculty)
- research associates/scientists
- all non-faculty PhD/MS/BS scientists (employees, not post-graduate trainees or students)
- IT staff working directly on the project
- high school students
- lab managers

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Faculty

All individuals holding an academic professorial rank

- tenure/tenure track
- clinical
- research
- visiting professors
- adjunct professors
- librarians
- academic specialists

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Research Analyst/Coordinator

This category is for individuals involved in large-scale clinical trials/studies who serve as analysts/managers/ coordinators/facilitators.

- research analysts
- study coordinators
- IACUC coordinators
- clinical coordinator
- clinical specialist
- research specialist
- lab coordinator

Post Graduate Research

All individuals holding terminal degrees (PhD, MD) who are in temporary training status

- postdoctoral
- medical residents/interns/fellows
- clinical fellowships

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Undergraduate Students

Students earning baccalaureate/other degrees including fulltime, part time, summer research assistants, work study

Graduate Students

Students earning advanced degrees

- graduate students (part time, full time)
- medical/dental/nursing/students

Clinicians

All non-faculty health care professionals

- nurses (non-faculty)
- dietitians (non-faculty)
- medical technicians
- nutritionists
- social workers
- physical therapists
- clinical psychologists
- dental hygienists

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Research Support

Individuals in this category should be examined closely, as most administrative research support is funded through university cost recovery (institutional support/indirect costs). However, there are instances where business/media/marketing/administrative personnel are legitimate/required costs, usually associated with large-scale center-level projects.

- operation managers/managing directors
- regulatory staff
- appropriate administrative/clerical staff
- outpatient support

Measuring the Results of Research Investments: Opportunities for CIC STAR METRICS Institutions

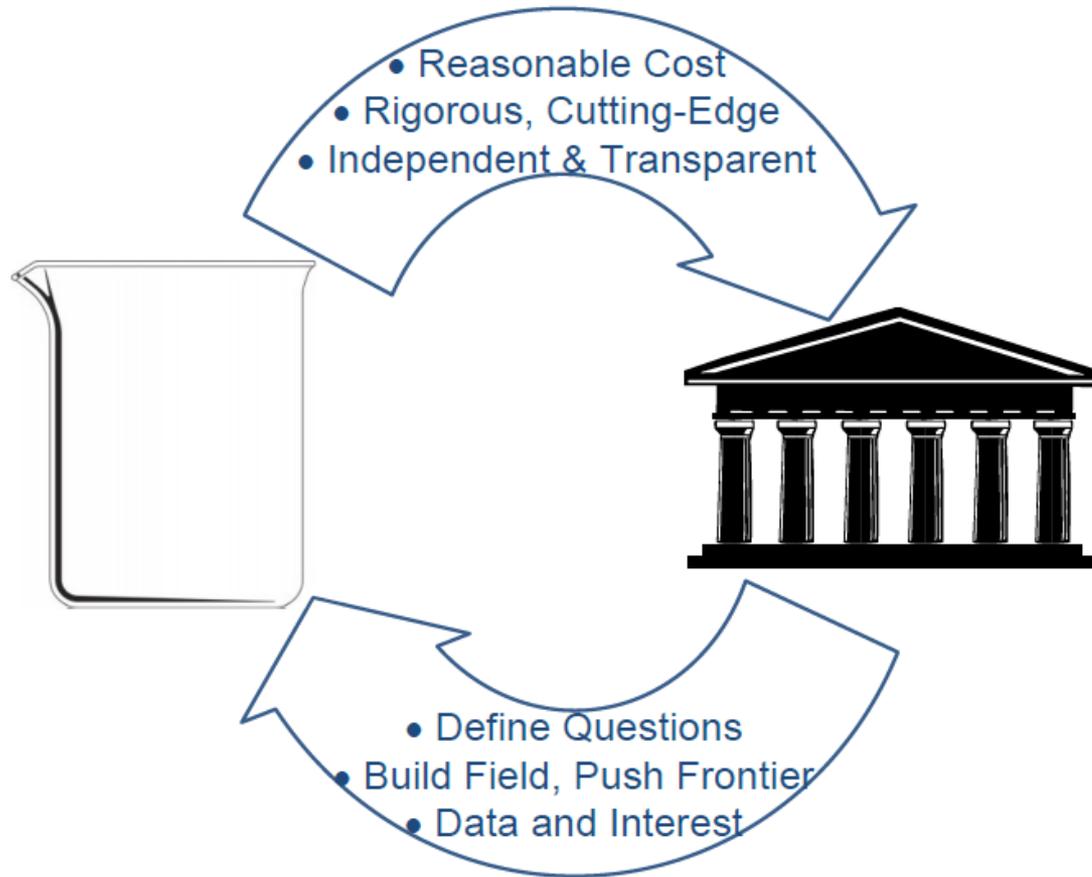
CIC: Committee on Institutional Cooperation (Big Ten + Univ. of Chicago)

Joint effort by University VPRs and Scholarly Researchers

Goal: to inform the regional, national and international debate by developing open and transparent measures and methods to quantify scientific, economic and social impact that can be used and trusted by policy makers.

CIC and UMETRICS

Overarching vision



CIC Activity

- Roy Weiss, University of Chicago, lead instigator
- March workshop hosted by CIC
 - CIC VPs for Research
 - CIC Science of Science Policy Researchers
 - NIH, NSF, USDA, Sloan Foundation, AAMC, AAU and APLU as observers
- All institutions agreed to collaborate in data (in secure site) and analysis
 - Projects now started or proposed in (1) economic impact; (2) food safety and security (3) training (postdoc, grad students) outcomes

CIC Activity: Economic Impacts

	Zoom Out				Zoom In
Analysis of:	Entire scientific enterprise	Scientific fields	Entire research institutions and funders	Specific fields at specific institutions	Specific labs, researchers
Useful for:	Government and institutions to justify and set level of science investments	Government to justify and allocate investments to fields	Institutions and funders to document performance	Identify best-practices, target investments	Micro-benchmark performance, identify underexploited opportunities
Method:	Econometric analysis	Econometric analysis	Bibliometric, Text, + Econometric	Bibliometric, Text, + Econometric	Bibliometric, Text, + Econometric
Status:	In progress	In progress	Planned	Planned	Planned

Building a Social Science Research Community around a new R&D Data Infrastructure

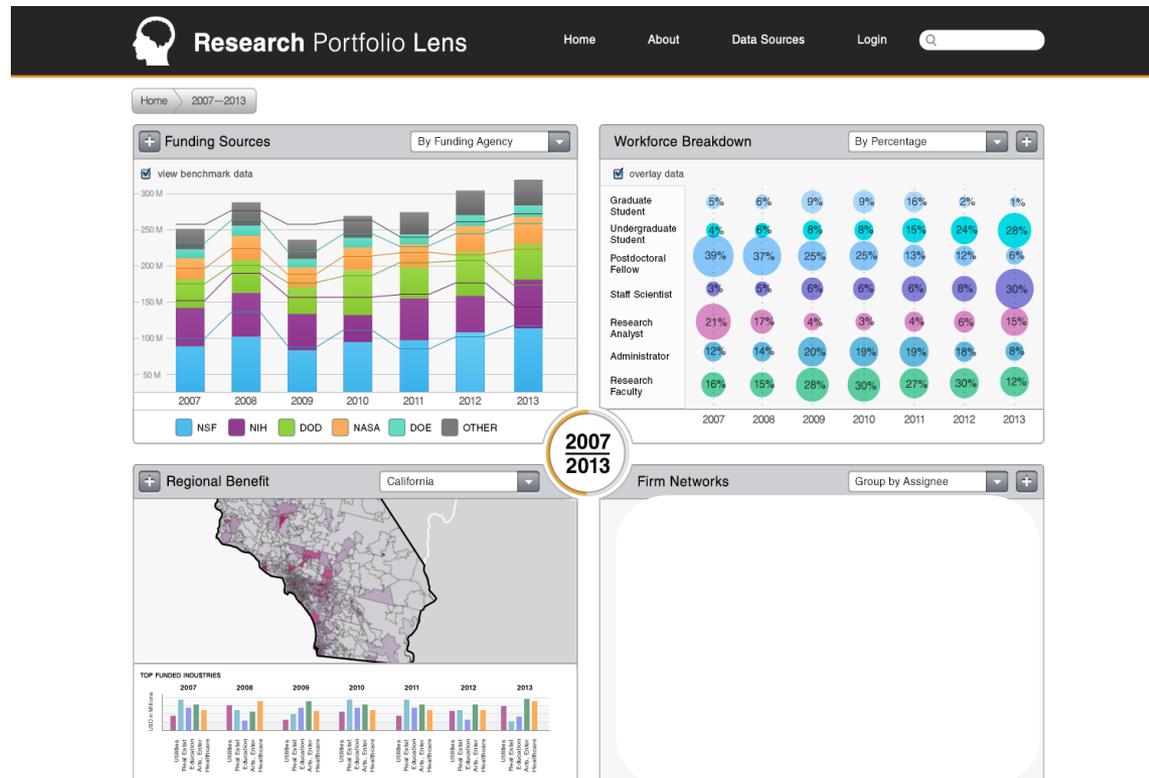
- Funded by National Science Foundation
- Uses CIC STAR METRICS Level 1 Data
- Researchers Jason Owen Smith and Maggie Levenstein, University of Michigan
- Analyses the distribution, geographic location, and industry of vendors that supply federally funded research,
- Analyses the collaborative networks supported by research funding
- Offers the first comprehensive picture of the effects of federal R&D spending on economic resilience and job creation via companies that support university research.

Training Environments Project

- Funded by National Science Foundation
- Uses CIC STAR METRICS LEVEL I data
- Researchers from OSU, Iowa, Illinois, Penn State, Chicago and AIR
- Examines the impact of different research funding structures on the training of future scientists, particularly graduate students and postdoctoral fellows, and the impact on their subsequent outcomes.
- Link the data to universe data on student jobs, earnings and industries
- Uses computer science technologies that permit the capture of information from text documents – to describe what research the students are being trained in

What goes back to CIC

- Reports and analyses
- Dashboard that links funding (top left), STAR METRICS Level 1 data (top right and bottom left).



International Context

ASTRA (Australia)

HELIOS (France)

CAELIS (Czech Republic)

NORDSJTERNEN (Norway)

STELLAR (Germany)

TRICS (UK)

SOLES (SPAIN)

First International Workshop in Paris (Sept 16/17)... which is where Julia (Lane), Bruce (Weinberg) and Joshua (Rosenbloom) all are!