

## **ACTION ITEM #4**

### **Establishment of Research Center for Interdisciplinary Statistical Education Research (CISER) (Daniel J. Bernardo)**

September 16, 2016

TO ALL MEMBERS OF THE BOARD OF REGENTS

**SUBJECT:** Establishment of Research Center

**PROPOSED:** That the Board of Regents establish the Center for Interdisciplinary Statistical Education Research (CISER)

**SUBMITTED BY:** Daniel J. Bernardo, Provost and Executive Vice President

**SUPPORTING**

**INFORMATION:**

The research community at Washington State University has a pressing need for improved access to statistical expertise. Research scientists and graduate students in need of specialized training have limited access to statistical training at a time of heightened need, while there are a limited number of statistics faculty capable of providing assistance. WSU faculty with statistical skills are scattered across multiple academic units, limiting visibility, coordination, and professional growth.

The Center for Interdisciplinary Statistical Education and Research (CISER) is being proposed by the College of Arts and Sciences and the College of Agricultural, Human, and Natural Resource Sciences to address these growing issues. The proposed center would build and maintain a vibrant statistics community, create new interdisciplinary research opportunities, provide a variety of opportunities for statistical education beyond standard course offerings, and enhance the image of WSU as it strives to grow as a research 1 (R1) university.

As proposed, CISER will contribute to university research, service and education. The primary service goal of CISER will be to build a broad statistical community at WSU, comprised of faculty and graduate students holding or pursuing graduate degrees in statistics as well as researchers from diverse disciplines with an interest in statistical methods. Drawing from this statistical community, CISER will facilitate greater involvement of researchers having statistical expertise on competitive proposals, funded projects, and peer-reviewed publications. Finally, CISER will contribute to the education of graduate

students and faculty through focused short courses and through individual engaged learning work with CISER statisticians.

The proposed center would provide a number of benefits to students, faculty, and WSU at large.

Faculty benefits include:

- Expanded opportunities for interdisciplinary, collaborative research through CISER-facilitated grant proposals and publications;
- Improved understanding of statistical techniques through regular interaction among Affiliated Faculty, CISER statisticians, and invited speakers;
- Compensation for delivering short courses related to a faculty's areas of statistical expertise;
- Professional development opportunities supported by discretionary CISER funds.

Student benefits include:

- Access to professional statisticians for research-relevant statistical learning;
- Short courses for targeted training in specific statistical techniques and software;
- Professional development for graduate students employed by CISER.

This recommendation was passed by the Faculty Senate on February 11, 2016.

Attachments: *Center for Institute Proposal – May 2016 Board of Regents Supplemental Information and CISER Sustainability and Metrics Addendum*

**Center or Institute Proposal - May 2016 Board of Regents Supplemental Information**

<b>Title of Proposed Center or Institute</b>	Center for Interdisciplinary Statistics Education and Research (CISER)
<b>Name of Primary Point of Contact (POC)</b>	Nairanjana Dasgupta
<b>POC Telephone Number</b>	(509) 335-3736
<b>POC Email Address</b>	<a href="mailto:dasgupta@wsu.edu">dasgupta@wsu.edu</a>
<b>Resources for Personnel and Operations</b> <i>(include the funding source)</i>	Core salaries/operation costs will be provided by CAS, CAHNRS, VPR, and the Provost's office. MOUs with other colleges and Service Center sales will provide funding for expansion.
<b>Facilities</b> <i>(include the funding source)</i>	Available space has been identified in Abelson (Rooms 213 and 221). This area has office and meeting space for core personnel, computers and telephones. Funding is provided by CAS, CAHNRS, VPR and Provost's office.
<b>Sustainability Plan Post 5 Years</b> <i>(e.g. what are plans if sustainability goals are not achieved?)</i>	Service Center will generate money and create contracts with agencies inside and outside WSU. Extramural funds will be generated through external grants, and private donations will also be sought out to supplement funding. Expansion will be scaled based on demand to remain sustainable. MOUs with colleges will continue to be reassessed based on usage/demand and the amount of available external funding.

## CISER Sustainability and Metrics Addendum

WSU and Mississippi State University are the only universities in our peer group (32 institutions) with no formal statistical consulting program. The following is an illustration of the value that a Statistics Center can provide, along with metrics for assessing Center sustainability and success.

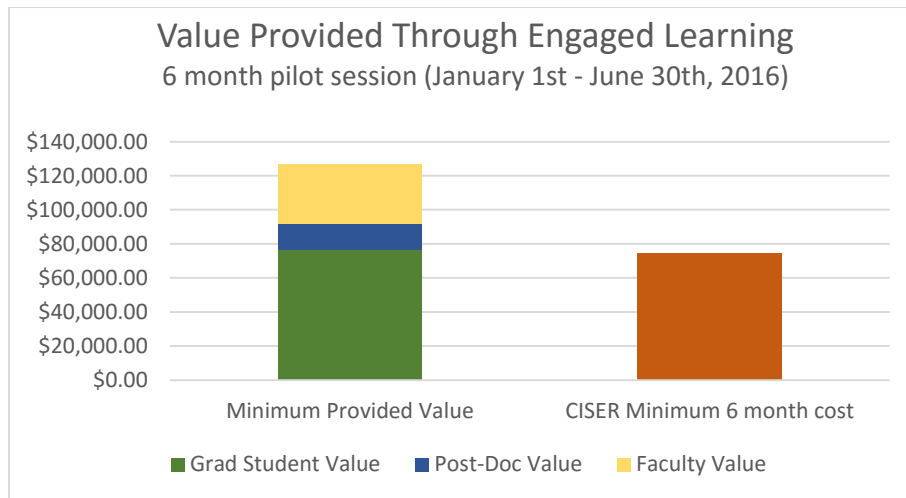
- Revenues consist of: returns on grants with substantial CISER involvement; university/college investments; billable consulting hours; donations.
- Current assessment of a 6-month trial period (representing a very limited preview of CISER/University engagement) includes:
  - Direct time spent in Engaged Learning assistance.
  - Follow-up survey respondents (n=20).
- These values represent minimum targets for future CISER activities.
  - Targets will be updated after data for a full year at full capacity is available.

### Grant Support

- Dollar value of 15 funded grants assisted by CISER: \$3,037,000.
- Dollar value of 2 pending grant proposals: \$306,283.

### Engaged Learning (EL)

- 303 hours across 60 projects for grad students, post-docs, faculty, and staff.
- EL economic value is approximately 170% of CISER cost.
- “Value Provided” calculations: sum of direct savings (EL hours \* \$125/hour) and indirect savings (time saved per survey results \* projects assisted \* average hourly cost of employee class).
  - \$125/hour is approximate market rate for statistics assistance to university researchers.
  - From follow up surveys, average time savings = 31 hours per project.



### Consulting (For the months of June and July, 2016)

- 11 hours billed to Washington state agency, 2.5 to WSU departments: total \$1,800.

### Private Donations

- An excellence account can solicit donations. Long-term goal to establish a program similar to Stanford’s “Industrial Affiliates” - <https://statistics.stanford.edu/iap/join>.

### Abstract Value Metrics (from survey data)

- **Graduation:**
  - 9/18 (50%) of respondents said EL directly contributed to graduation.
  - 8/18 (44%) said EL directly contributed to thesis or dissertation completion.
- **Publications:** 17/18 (94%) survey respondents said CISER’s services will help achieve publication.
- **Overall Approval Rating (0 to 100):** Average score = 89.25.