

Contact: Diana Gonzalez

**REQUEST TO CREATE NEW CENTER AT IOWA STATE UNIVERSITY:
CENTER FOR STATISTICS AND APPLICATION IN FORENSIC EVIDENCE (CSAFE)**

Action Requested: Consider recommending approval of the request by Iowa State University to establish the Center for Statistics and Application in Forensic Evidence (CSAFE) in the office of the Vice President for Research.

Executive Summary: The purpose of the proposed center is to provide a national research center in forensic sciences. This proposal was reviewed by the Board Office and the Council of Provosts and is recommended for approval. Board of Regents Policy §6.08 requires that all centers and institutes be approved by the Board. This request addresses the Board of Regents Strategic Plan priorities to provide “educational excellence and impact” and “economic development and vitality,” Goal #7 - “Iowa’s public universities shall contribute to the expansion and diversification of the Iowa economy,” and Goal #8 - “Iowa’s public universities and special schools shall be increasingly efficient and productive.”

Background:

- ◇ **Description of proposed center.** The proposed Center for Statistics and Application in Forensic Evidence (CSAFE) is a National Institute for Standards and Technology (NIST) sponsored national center of excellence for research, outreach, and education in statistical and probabilistic methods for the forensic sciences. The lead institution is Iowa State University; there are three institutional partners – Carnegie Mellon University (Pittsburgh, PA); University of Virginia (Charlottesville, VA); and the University of California at Irvine (Irvine, CA). NIST has committed funds for the first five years of the center’s operation and requires that the CSAFE be established at ISU.
- ◇ **Need for proposed center.** During the past several years, as a variety of forensic techniques have undergone scrutiny, it has become apparent that many are not reliant on solid scientific principles which has resulted in wrongful incarceration for innocent persons. In 2009, the National Research Council published a report titled “Strengthening Forensic Sciences in the United States: A Path Forward,” in which there was a recommendation that the federal government provide funding for a national research center in forensic sciences. Last year, the National Institute of Standards and Technology announced a competition for a National Center of Excellence in Forensic Sciences. A team that included Statistics representatives from ISU, Carnegie Mellon University, the University of Virginia, and the University of California at Irvine as well as a representative from the Ames Lab and the Midwest Forensic Resource Center submitted a proposal for the establishment of a center with a home base at ISU and partner locations at the institutions of the co-principal investigators. A five-year grant was awarded to ISU and its partners.
- ◇ **Proposed center activities and objectives.** The following is the mission of the proposed center:
 - ⇒ Conduct research to develop a solid probabilistic foundation for pattern and cyber evidence.
 - ⇒ Involve the community of forensic practitioners in center activities to promote quick implementation of the research conducted by center scientists.

⇒ Develop training and education modules for forensic practitioners, the legal professional, and statistics students with an interest in forensic sciences.

Other activities will include workshops, conferences, summer programs, and other programs that will contribute to meeting the Center's goals.

- ◇ Relationship of proposed center to University's Strategic Plan. The proposed center addresses the strategic vision of the university and meets the land grant mission of creating, sharing, and applying new knowledge for the good of society. The proposed center will create a venue where basic scientists, practitioners, and government scientists can interact and will provide research opportunities for graduate and undergraduate students. Three Minority Serving Institutions (Eastern New Mexico University, Albany State University, and Fayetteville State University) have been invited to participate in center activities which is consistent with ISU's goals of increasing the participation of minorities in STEM fields.
- ◇ Relationship of proposed center to existing centers/institutes at ISU. The proposed center will include faculty participation from almost all colleges at ISU. Most of the current research on forensic sciences on campus has not achieved national recognition. By establishing a national Center of Excellence in Forensic Sciences, possibilities for researchers on campus interested in this topic will be expanded and will explicitly connect research conducted with educational and outreach activities. The proposed center will extend the mission of ISU's Midwest Forensics Research Center to a national level and more completely integrate forensics activity on campus across the three institutional missions. The NIST national center will collaborate with stakeholders in the Midwest Forensics Resource Center (MFRC) includes crime laboratories in Iowa, Idaho, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, and Wisconsin.
- ◇ Existence of proposed center at other Iowa institutions. The proposed center will be the only federal-funded forensic sciences center in the U.S. The MFRC will assist with the outreach mission of CSAFE. The proposed center will not duplicate any existing center in Iowa or at ISU.
- ◇ Unique features of Iowa State University to support the proposed center. ISU has a nationally recognized Department of Statistics in the College of Liberal Arts and Sciences. It has a long tradition of collaborative research and applications in many areas, including forensic sciences. The Midwest Forensics Resource Center has an excellent reputation and connections with forensic practitioners and law enforcement nationwide.
- ◇ Inter-institutional and collaborative efforts with other entities. The proposed center anticipates collaborating with the College of Law at the University of Iowa as well as with law enforcement agencies across the state of Iowa.
- ◇ Personnel. The proposed center anticipates hiring three administrative/technical staff members, including an assistant director who will coordinate and administer the project; an IT and database support specialist; and an instruction and education specialist and coordinator. The current director of the MFRC will be assigned half-time to help implement the outreach activities for the center. A statistics professor will serve as the center director and will receive two-four months of salary support from the center.

- ◇ Facilities. The proposed center is a virtual center and existing institutional resources available for imagining, computing, modeling, and collaboration will be leveraged.
- ◇ Equipment. Equipment needed for the establishment and operation of the proposed center, such as data servers, will be purchased following center approval. The center will use shared equipment at ISU by paying the appropriate user fees. Through cooperation with NIST, center researchers will have access to equipment that may not be available on ISU’s campus.
- ◇ Expected need. The proposed center has been funded for five years with a renewal possibility for a second five-year funding period.
- ◇ Communication with existing campus structures. The center is being established on the basis of an externally sponsored funding award. The mission and activities of the center have been rigorously reviewed by national peers and the funding agency. The principal investigator worked with the Offices of the Vice President for Research and the Senior Vice President and Provost to establish the center at ISU.
- ◇ Cost. A NIST award of approximately \$20 million over five years will provide funding for the proposed center to be established and operated. The center will require no departmental or college reallocation; all the funding is new to the university. The Office of the Vice President for Research, and the Colleges of Agriculture and Life Sciences and Liberal Arts and Sciences will reallocate a portion of their indirect cost recovery to cover some of the operating cost of the center. The annual budget is described below. The total grant budget is included on page five.

Annual expenditures are estimated to be approximately \$4 million per year. Two-fifths of those funds will be used at ISU; the remaining three-fifths will cover sub-contracts with partner institutions.

At least initially, the center will be dependent on continued NIST funding; loss of those funds would result in closing the proposed center. However, barring a catastrophe, funds are guaranteed for the initial five-year period with a renewal for a second five-year period possible.

- ◇ The cost of the proposed center at ISU will include the following:

Total Costs	Source(s) of Funds: NIST and IDC returns from	Total New Costs – with subcontracts Direct Costs Only	Total New Costs – ISU Direct Costs Only
Year 1	\$3,700,129	\$3,420,328	\$1,175,823
Year 2	\$3,705,922	\$3,426,121	\$1,243,182
Year 3	\$3,741,018	\$3,246,217	\$1,176,921
Year 4	\$3,738,200	\$3,458,399	\$1,186,729
Year 5	\$3,740,645	\$3,460,844	\$1,186,159

The details are provided in Attachment A.

- ◇ Evaluation plan. The center will be evaluated annually by an independent evaluation group headed by a professor from the Department of Political Science and by the Office of the Vice President for Research. In addition, the center will have various advisory boards that will review and recommend technical issues and priorities for the center.

- ◇ Implementation. After obtaining Board approval, the Center for Statistics and Application in Forensic Evidence will be implemented immediately.

Board of Regents, State of Iowa

REQUEST TO ESTABLISH A CENTER OR INSTITUTE

NIST Center for Statistics and
Application in Forensic Evidence
(CSAFE) 5 Yr. budget

	Year 1	Year 2	Year 3	Year 4	Year 5	Total All Years
Salaries and Fringe Benefits	731,411	803,171	775,951	799,231	823,208	3,932,972
<i>Salaries/Fringe Director</i>	52,187	53,752	55,364	57,025	58,736	277,064
<i>Salaries/Fringe All Others</i>	679,224	749,419	720,587	742,206	764,472	3,655,908
Equipment	18,699	-	-	-	-	18,699
Travel	20,520	20,520	20,520	20,520	20,520	102,600
Participant Support	119,040	119,040	119,040	119,040	119,040	595,200
Other Direct Costs	2,530,658	2,483,390	2,545,706	2,519,608	2,498,076	12,577,438
<i>Materials and Supplies</i>	186,541	197,490	154,440	136,290	110,390	785,151
<i>Publication Costs</i>	500	500	500	500	500	2,500
<i>Consultant Services</i>	4,500	4,000	4,000	4,500	1,500	18,500
<i>ADP/ Computer Services</i>						-
<i>Subawards/Consortium/Contractual Costs</i>	2,244,505	2,182,939	2,284,296	2,271,670	2,274,685	11,258,095
<i>Equipment or Faculty Rental/User Fees</i>	3,000	3,000	3,000	3,000	3,000	15,000
<i>Alterations and Renovations</i>	-	-	-	-	-	-
<i>Graduate Student Tuition</i>	91,612	95,461	99,470	103,648	108,001	498,192
Total Direct Costs - TOTAL NEW COSTS	3,420,328	3,426,121	3,461,217	3,458,399	3,460,844	17,226,909
PI incentive (100%)	82,904	82,904	82,904	82,904	82,904	
VPR (75%)	134,719	134,719	134,719	134,719	134,719	
CALS (50%)	39,794	39,794	39,794	39,794	39,794	
LAS (50%)	22,384	22,384	22,384	22,384	22,384	
IDC Return to Center per Year	279,801	279,801	279,801	279,801	279,801	1,399,005
Total Direct + IDC to Center - SOURCE(S) OF FUNDS	3,700,129	3,705,922	3,741,018	3,738,200	3,740,645	18,625,914

ADVISORY COUNCILS

CSAFE has three advisory councils as described below. Each council will meet annually in person at one of the partner institutions and on other occasions through web-enabled meeting facilities. The purpose of the advisory councils is to provide insight into emerging issues in forensics and relevant statistical methodologies from the perspective of stakeholders, technical experts, and practitioner communities. Their role is to offer guidance from these groups; the councils will not make decisions for the Center.

Senior Advisory Council (SAC)

The SAC serves as a sounding council for the Center's leadership regarding research directions, outreach activities, and education and training. The SAC will have a good overview of the Center's projects and initiatives, be aware of opportunities for Center involvement, and help the Center recognize challenges and gaps in the use of valid statistical approaches for forensic science.

Technical Advisory Council (TAC)

The TAC will provide guidance on the technical aspects of the Center's projects and, most importantly, will serve as a conduit for feedback and exchange of ideas between the statistical, legal, and forensic community as well as a bridge to the private, state, and federal sectors. The experts in the TAC will review and inform the Center's leadership on the validity and quality of scientific research proposed and conducted by the Center in this area.

Practitioners and Stakeholders Advisory Council (PSAC)

The PSAC will inform the Center's leadership on implementation and adoption issues and barriers to and avenues for training and technology transfer. Membership in the PSAC will include forensic practitioners, prosecutors and defense lawyers, representatives of industrial and training partners, an employee of the Office of Intellectual Property and Technology Transfer (OIPTT) at Iowa State University, and representatives of NIST.