

## **NSF AND THE STIMULUS PACKAGE 2009**

(Summary by Fabio Chacon)

The MHEC does not seem to have reacted yet (04/17/2009) with respect to the American Recovery and Reinvestment Act of 2009. However, NSF is very active with respect to it and this report summarizes opportunities for BSU. It is based on excerpts of the NSF website.

### **General Policies Regarding ARRA**

- “American Recovery and Reinvestment Act (ARRA) funding of new Principal Investigators and high-risk, high-return research will be top priorities. With the exception of the Academic Research Infrastructure Program, the Science Masters Program, and the Major Research Instrumentation Program, the majority of proposals eligible for Recovery Act funding include those that are already in-house and will be reviewed and/or awarded prior to September 30, 2009.”
- “Recovery Act funding is a one-time occurrence and therefore all new grants awarded using Recovery Act funds will be made via use of standard grants.”
- “NSF already has many highly rated research proposals in hand to consider for funding with ARRA funds. Some research proposals have already been reviewed and others are in the review process. NSF is planning to use the majority of the \$2 billion available in Research and Related Activities for proposals that are already in house and will be reviewed and/or awarded prior to Sept. 30, 2009.”
- “Grants funded under ARRA will be awarded quickly in order to contribute to new job creation and reinvestment.”
- “All grants issued with Recovery Act funds will be standard grants with durations of up to 5 years. This approach will allow NSF to structure a sustainable portfolio.”

### **Opportunities for BSU**

Presenting proposal in the following areas seems feasible. All of them would require collaboration between academic departments and DIT.

#### ***Course, Curriculum, and Laboratory Improvement (CCLI)***

Full Proposal Deadline Date: May 21, 2009 For Type 1 proposals from submitting organizations located in states or territories beginning with A through M.

The Course, Curriculum, and Laboratory Improvement (CCLI) program seeks to improve the quality of science, technology, engineering, and mathematics (STEM) education for all undergraduate students. It especially welcomes proposals that have the potential to transform undergraduate education in science, technology, engineering, and mathematics (STEM) for all students. The program supports efforts to create, adapt, and disseminate new learning materials and teaching strategies to reflect advances both in STEM disciplines and in what is known about teaching and learning. It funds projects that develop faculty expertise, implement educational innovations, assess learning and evaluate innovations, prepare K-12 teachers, or conduct research on STEM teaching and learning. It also supports projects that further the work of the program itself, for example, synthesis and dissemination of findings across the program.

The program supports projects representing different stages of development, ranging from small, exploratory investigations to large, comprehensive projects.

***Alliances for Broadening Participation in STEM (ABP)***

Full Proposal Deadline Date: August 25, 2009. Innovation through Institutional Integration

Full Proposal Deadline Date: October 9, 2009. LSAMP Educational Research Projects

Second Friday in October, Annually Thereafter Full Proposal Deadline Date: October 9, 2009

Louis Stokes Alliances for Minority Participation Second Friday in October, Annually Thereafter.

**LSAMP and AGEP PROGRAMS**

The Alliances for Broadening Participation in STEM (ABP) solicitation includes the Louis Stokes Alliances for Minority Participation (LSAMP) program, Bridge to the Doctorate (LSAMP-BD) Activity, and the Alliances for Graduate Education and the Professoriate (AGEP) program.

This portfolio of programs seek to increase the number of students successfully completing quality degree programs in science, technology, engineering and mathematics (STEM). Particular emphasis is placed on transforming STEM education through innovative academic strategies and experiences in support of groups that historically have been underrepresented in STEM disciplines: African-Americans, Alaskan Natives, Native Americans, Hispanic Americans, and Native Pacific Islanders.

Managed synergistically, the ABP cluster enables seamless transitions from the STEM baccalaureate to attainment of the doctorate and entry to the STEM professoriate. ABP support begins at the baccalaureate level through the LSAMP program. LSAMP emphasizes development of broad based regional and national alliances of academic institutions, school districts, state and local governments, and the private sector to increase the diversity and quality of the STEM workforce. Eligible LSAMP undergraduate students may receive continued support for up to two additional years of STEM graduate study through the Bridge to the Doctorate (BD) Activity. The Bridge to the Doctorate provides significant financial support for matriculating candidates in STEM graduate programs at eligible alliance sites. Alliances for Graduate Education and the Professoriate (AGEP) furthers the graduate education of underrepresented STEM students through the doctorate level, preparing them for fulfilling opportunities and productive careers as STEM faculty and research professionals. AGEP also supports the transformation of institutional culture to attract and retain STEM doctoral students into the professoriate.

Innovation through Institutional Integration (I3) projects enable faculty, administrators, and others in institutions to think and act strategically about the creative integration of NSF-funded awards, with particular emphasis on awards managed through programs in the Directorate for Education and Human Resources (EHR), but not limited to those awards. For Fiscal Year 2009, proposals are being solicited in nine EHR programs that advance I3 goals: CREST, GSE, HBCU-UP, ITEST, LSAMP, MSP, Noyce, RDE, and TCUP.

**Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)**

Full Proposal Deadline Date: August 25, 2009

Innovation through Institutional Integration (I3)

This program provides awards to enhance the quality of undergraduate science, technology, engineering, and mathematics (STEM) education and research at Historically Black Colleges and Universities (HBCUs) as a means to broaden participation in the Nation's STEM workforce. Support is available for Implementation Projects (including Achieving Competitive Excellence), Planning Grants, Education Research Projects, and Targeted Infusion Projects.

Implementation Projects provide support to implement a comprehensive institutional project to strengthen STEM education and research. Proposed activities and strategies should: be the result of an institutional STEM self-analysis; address institutional and NSF goals; and have the potential to result in significant and sustainable improvements in STEM program offerings. Typical project implementation strategies include: curriculum enhancement, faculty professional development, undergraduate research, academic enrichment, student support services, infusion of technology to enhance STEM instruction, collaborations with research institutions and industry, and other activities that enhance the quality of the undergraduate STEM education and STEM teacher preparation programs. Proposers are encouraged to analyze the strengths of the institution and design innovative educational strategies, based on proven best practices, to place the institution at the forefront of undergraduate STEM education. The Achieving Competitive Excellence (ACE) or ACE Implementation Projects track is intended for HBCUs pursuing additional rounds of funding, and it seeks ambitious, transformative, far-reaching proposals that promise paradigm-shifting advances in STEM undergraduate education at the institution. Planning Grants provide support to undertake self-analysis of the institution's undergraduate STEM programs to identify components that need improvement or enhancement in order to provide a high quality undergraduate STEM education. Planning grants should also research existing activities and strategies that could be implemented in a proposed project to improve the quality of undergraduate STEM education at the institution. Typical activities include: data collection and analysis, stakeholder consultation, research of potential activities and strategies, site visits to model programs, and writing a proposal for Implementation Projects (including ACE), Education Research Projects, and Targeted Infusion Projects.

Education Research Projects provide support to undertake a three-year education research project that has the potential to strengthen the STEM education and research programs at HBCUs. Education Research Projects must be based on sound education research methodologies and theories. Potential education research topics include: retention, diffusion of innovations, curricula enhancements, technology in education, STEM teacher education, and the identification of successful models. This is not a supplemental program - HBCUs do not need to have an Implementation Project in order to submit ERP proposals.

Targeted Infusion Projects provide support to achieve a short-term, well-defined goal to improve the quality of undergraduate STEM education. Typically, projects are focused on one activity within a single STEM department however interdisciplinary and cross disciplinary projects are encouraged. Potential goals include: specialized accreditation or certifications, establishing new programs or concentrations, establishing collaborations between STEM disciplines and teacher education programs, and updating programs to reflect advances in the field and workforce requirements. This is not a supplemental program. HBCUs do not need to have an Implementation Project in order to submit a TIP proposal.

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