

**ARRA Opportunity: NSF Science Master's Programs
August 18, 2009**

On August 18, 2009, the National Science Foundation (NSF) released its solicitation for proposals to catalyze the creation of Science Master's Programs (SMPs). This is NSF's final solicitation under the American Recovery and Reinvestment Act (ARRA). Highlights of this new program include:

- NSF defines a Science Master's Program as a science, technology, engineering and mathematics (STEM) based graduate education curriculum broadened with education that provides additional skills, such as through specially tailored courses in business and management, research experiences, and internship experiences, that prepare students to work in business, industry, government agencies, or nonprofit organizations.
- Each institution can be the lead on only one proposal in response to this solicitation.
- No particular fields for the SMPs are specifically sought, but proposals should feature partnerships with potential employers to determine the high workforce need areas and the relevant training required. Recruitment and retention of students from groups underrepresented in science and engineering are also emphasized. Proposals that demonstrate a readiness to start the new SMP expeditiously will be given priority.
- NSF seeks to support institution-based efforts that can be sustained without federal funding beyond the grants made in this competition. NSF will give preferences to those applicants (1) that are located in States with low percentages of citizens with graduate or professional degrees and that demonstrate success in meeting the unique needs of the corporate, non-profit, and government communities in the State, or (2) that secure more than two-thirds of the funding for such professional science master's degree programs from sources other than the Federal Government.
- NSF expects to make 21 awards, each for up to \$700,000 over three years. The bulk of the funds must be used for graduate student stipends and educational and training activities.
Letters of intent are required and are due October 5, with full proposals due November 20.

Further information on this program is below.

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Science Master's Program (SMP)

Program Web Site: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503428

Solicitation: <http://www.nsf.gov/pubs/2009/nsf09607/nsf09607.htm>

Funding and Timeline: NSF expects to make 21 awards, each for up to \$700,000 over three years. The bulk of the funds must be used for graduate student stipends and educational and training activities. Letters of intent are required and are due October 5, with full proposals due November 20.

Limits: Each institution can only be lead on one proposal. (If a state system submits a proposal, local institutions within that system may still submit one proposal.) The Principal Investigator must be on the science, technology, engineering or mathematics faculty of the submitting institution.

Preferences: As required by the 2007 legislation that authorized this program, NSF will give preferences to those applicants

(1) located in States with low percentages of citizens with graduate or professional degrees that demonstrate success in meeting the unique needs of the corporate, non-profit, and government communities in the State, or (2) that secure more than two-thirds of the funding for such professional science master's degree programs from sources other than the Federal Government.

Cost-Sharing and Indirect Costs: Cost-sharing is not required. However, institutional commitment to the program, including sustaining of the program after the award has ended, is expected. Partial reimbursement of indirect costs is provided not to exceed 8% of total direct costs, including participant support but excluding cost of education.

ARRA Reporting: Special tracking and reporting requirements will apply, as this funding is from the American Recovery and Reinvestment Act (ARRA).

http://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF.

Eligible Fields: No particular fields are specifically sought, but NSF does not support research and education programs with disease-related goals. However, research and education in bioengineering are eligible.

Highlights of Solicitation:

The Science Master's Program prepares graduate students for careers in business, industry, nonprofit organizations, and government agencies by providing them not only with a strong foundation in science, technology, engineering and mathematics (STEM) disciplines, but also with research experiences, internship experiences, and the skills to succeed in those careers. The program is intended to catalyze the creation of institution-based efforts that can be sustained without additional federal funding. This program is also intended to encourage diversity in student participation so as to contribute to a broadly inclusive, well-trained science and engineering workforce.

As this solicitation is offered as part of the American Recovery and Reinvestment Act of 2009, timeliness is important. Proposals that demonstrate a readiness to start the new program expeditiously will be given priority. Proposals must demonstrate that the proposed program is ready to award the new Master's degree. Letters from senior administrators will be required to justify that the program has been approved by the various internal and external approval boards and groups prior to an award. A Master's degree may currently be in place that can be extended to cover the new Science Master's Program.

Other highlights:

- Proposals must demonstrate that the proposed programs meet the needs of the intended workplace and that careful market research and collaboration have led to the proposed model.
- In order to ensure that students will gain an understanding of how knowledge is created through STEM research, each project must develop a hands-on research experience for each of its students. These research experiences must be at the graduate level and should reflect the STEM interests of potential employers in industry, government, or the non-profit sector.
- Practical experiences must be included in the total curriculum. These may involve such activities as internships, project development, and mentoring in industrial, national laboratory, non-profit, or other work settings.
- Successful SMP applicants must also include strategies for recruitment and retention of members of groups underrepresented in science and engineering, including women, racial and ethnic minorities, and persons with disabilities.