NSF Keeps Review Criteria but Changes Emphasis

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This is a series of tips published in UMMS Research News about writing proposals.

The two broad review criteria for National Science Foundation Grants (NSF) grants are:

1. *Intellectual Merit:* e.g., project's potential to advance knowledge.

2. *Broader Impacts:* e.g., project potential to benefit society and contribute to achievement of specific, societal outcomes.

In 2013 NSF, advised by the National Science Board, has shifted emphasis equally between these criteria, and the Principal Investigator (PI) needs to take the broader impacts criterion more seriously than before.
The broader impacts criterion is required by Congress and motivated by the goal of investing in activities that will enhance the nation's position in a global economy.

To that end, the PI must keep in mind NSF's goals regarding broader impacts, specifically:

- Increased economic competitiveness;
- Development of a globally competitive work force in science, technology, engineering, and mathematics;
- Increased participation of women and members of underrepresented minority groups in these fields;
- Improved education and teacher development in these fields in elementary and secondary schools;
- Improved undergraduate education in these fields;
- Increased partnerships between academe and industry;
- Increased public scientific literacy; and
- Increased national security.

NSF has removed the list of examples of broader impacts that it had on the web in an effort to foster creativity.

Applicants should focus on ways to extend the influence of the proposed work to benefit society more broadly, and should strive for impact that is in proportion to the size of the project.

Host a brainstorming session devoted exclusively to broader impacts. And remember, one idea that is always a good idea in NSF grants - hire a student!

For more information, view the NSF Grant Proposal Guide: Chapter III - NSF Proposal Processing and Review.