Broadening the participation of underrepresented groups in STEM is crucial for many reasons. This includes increasing diversity, enhancing educational opportunities, and ensuring equitable access to STEM fields for all students. The Iowa State University (ISU) ADVANCE program is an initiative that aims to improve participation and success in STEM fields for underrepresented groups. This program is supported by the National Science Foundation (NSF) and involves various initiatives and partnerships to achieve these goals.

### Broader Impacts Statements in Abstracts 2007-2011 Funded NSF Proposals*

The purpose of this study is to understand how broader impacts are captured in proposal abstracts. Using qualitative content analysis, 665 NSF grant abstracts for funded awards by ISU researchers were examined for the types and frequency of broader impacts language.

Broadening the participation of underrepresented groups was mentioned a total of 33 times and had a coverage percentage of 3.32. Analysis of those 33 statements revealed two subcategories of ways in which researchers mentioned broadening the participation of underrepresented groups: recruitment and providing research and/or education opportunities to underrepresented minorities. While several statements regarding broadening participation used broad language such as “diverse group” or “underrepresented groups,” several statements specifically indicated broadening participation for either women or racial/ethnic minorities.

### Broader Impacts Fair

Campus programs and other potential Broaden Impacts partners came together to consult and discuss options for collaboration with faculty in assisting with their Broader Impacts plans. Seventeen programs that work in areas to broaden participation were present.

### The Broaderening Participation Programs that participated included:

- Alliance for Building Faculty Diversity in the Mathematical Sciences
- Engineering Precollege Programs
- Enhancing Diversity in Graduate Education
- George Washington Carver Summer Internship Program
- Graduate College
- Graduate Research Assistantship Match
- INSPIRE-LSAMP
- Iowa EPSCoR
- ISU ADVANCE
- Minorities in Agriculture, Natural Resources, and Related Sciences
- National Alliance for Doctoral Studies in the Mathematical Sciences
- Program for Women in Science and Engineering
- Partnership between Math Departments at ISU and U. of P.R., Rio Piedras Campus
- Ronald E. McNair Post-Baccalaureate Achievement Program
- SACNAS Chapter
- Science Bound
- Summer Program for Enhancing Engineering Development

### Evaluation

- **Coverage of Broader Impacts Categories**
  - References (n): 86
  - Percent Coverage: 3.32

- **Coverage of Broader Impacts Subcategories**
  - References (n): 20
  - Percent Coverage: 2.9

Note: Percent coverage refers to the percentage of text devoted to a particular category compared with the total amount of text. Number of references refers to the number of times activities fitting into each category were mentioned.

*This information is excerpted from a report done by Brandi N. Geisinger, Carrie Kortegast, and Mari Kemis from the Research Institute for Studies in Education at Iowa State University. The complete report can be found at [http://www.spisu.iastate.edu/resources/view/id/66](http://www.spisu.iastate.edu/resources/view/id/66)*

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