

1046-97-1401 **Karen A. Marrongelle*** (kmarrong@nsf.gov) and **Larry Suter** (lsuter@nsf.gov). *A Review of NSF-supported Research and Development on Instructional Innovations in Undergraduate Mathematics Education*. Preliminary report.

This presentation focuses on examining the NSF undergraduate portfolio in mathematics instruction and learning that has been awarded in the Directorate for Education and Human Resources. Presenters will discuss how the undergraduate mathematics research and development projects are intended to provide groundwork of theory and scientific rigor for many of the recommendations for best teaching practices in mathematics. The authors will discuss the nature of evidence resulting from these NSF-funded projects in fields of mathematics. Presenters will address the NSF Education and Human Resources portfolio's gaps in mathematics content, course innovations, and methodology, developing insights into the current activities and projects underway in American colleges and universities.

Funded projects have been classified as addressing course innovations or research in the areas of: (1) Instructors and Professional Development; (2) Instructional Practices; (3) Instructional Materials; (4) Assessment of Student Learning; and (5) Technology. For example, projects may introduce research or development of topics such as lecture or cooperative learning. Other projects include visualizations and applying principles of design research to develop and refine inquiry-based curricula. (Received September 15, 2008)