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Call for Proposals: NSF's EHR Core Research (ECR): Building Capacity in STEM Education Research (ECR: BCSER)

Posted on behalf of the National Science Foundation

The U.S. National Science Foundation (NSF) Education and Human Resources (EHR) Directorate issues the EHR Core Research (ECR): Building Capacity in STEM Education Research solicitation.

Insights from fundamental STEM education research inform the development of theories that explain phenomena of importance to the mission of NSF's Directorate for Education and Human Resources (EHR). Examples include theories to explain what factors impede or promote individuals' learning in various contexts; what factors contribute to persistent underrepresentation of individuals from various groups in STEM courses of study and careers; and what skills, experiences, and affective characteristics prepare individuals for the current and emerging STEM professional workforce.

Advances in fundamental STEM education research also are essential to foster new and/or more effective interventions and innovations in STEM education, broadening participation, and workforce development. Fundamental STEM education research studies generate (whether by design or more indirectly [1]) the knowledge, theories, and understandings on which viable strategies for enhancing performance or addressing gaps in STEM learning, broadening participation in STEM, and STEM professional workforce development are based. Through the EHR Core Research (ECR) and other programs, EHR supports advances in fundamental knowledge in each of these areas.

Recognizing the value of skills, expertise, and experiences that support fundamental contributions to the knowledge base, the ECR Building Capacity for STEM Education Research (ECR: BCSER) competition seeks to support projects that build individuals' competencies to carry out high quality fundamental education research in STEM fields, particularly early career researchers and researchers seeking to shift their work, for example, from education research or STEM disciplinary research to STEM education research. STEM education research capacity building may be accomplished through investigator-initiated projects and professional development institutes that enable researchers to integrate methodological strategies with theoretical and practical substantive issues in STEM education. Proposals may be submitted that also seek support to conduct well-focused conferences or workshops related to ECR: BCSER goals.

Through these initiatives, ECR: BCSER will invest in the field, helping to broaden the pool of researchers with the skills, experiences, and expertise required to successfully conceptualize, design, and conduct studies capable of expanding fundamental understandings critical to enhancing STEM learning, broadening participation in STEM fields, and developing the STEM professional workforce.

Read more

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[1] Stokes (1997: 73) used the terms 'pure basic research' to designate investigations with a quest for fundamental understanding inspired with no consideration for use, and 'use-inspired basic research' to designate investigations with a quest for fundamental understanding inspired by considerations of use.