



The Division of Graduate Education:
Your Partners in Graduate Education

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How DGE Supports Graduate Education

- DGE programs are a *partnership* with the entire Foundation
- There is no distinct “*DGE community*”
- We work with MPS and the other R&RA Directorates to promote graduate education

How DGE Supports Graduate Education

- Scholarships and Fellowships for Graduate Students
- Interdisciplinary Research Traineeships
- Testing Innovative Models for Graduate Education
- Research on Graduate Education and Workforce Development
- Support the Agency Priority Goal on Graduate Student Preparedness

Scholarships and Fellowships

- **The Graduate Research Fellowship Program (GRFP)**
 - Three years of financial support
 - 2,000 fellowships awarded annually
- **CyberCorps[®]: Scholarships for Service Program (SFS)**
 - Scholarships in cybersecurity
 - Post-scholarship government service

Interdisciplinary Research Traineeships

- **The NSF Research Traineeship (NRT)**
 - Supports innovative models for graduate training in high priority interdisciplinary areas
 - *Data-Enabled Science and Engineering (DESE)*
 - *Innovations at the Nexus of Food Energy Water Systems (INFEWS)*
 - *Understanding the Brain (UtB)*

Testing Innovative Models

- **NRT Innovations in Graduate Education Track (IGE)**
 - Projects that design, pilot, and validate new and innovative approaches to graduate education
 - Projects informed by learning science and existing knowledge about STEM graduate education
 - Assessment is a priority: Proposals include plans to evaluate the success of the training

How do we assess and choose possible changes?

Research on Grad Ed and Workforce

- **EHR Core Research (ECR)**
 - STEM learning and learning environments
 - STEM workforce development
 - Broadening participation in STEM

Do we know how well their graduate experience prepared them?

Where are our doctoral graduates going?

Are changes needed? What are they?

DGE Initiatives: Grad Ed and Workforce

- **Evaluation of existing programs**
 - Setting benchmarks for best practices in graduate education program evaluation
- **EDGE Speaker Series**
 - Bringing in leading researchers in graduate education to NSF
- **NAS Consensus Study**
 - Evaluating the state of STEM grad education as a precursor to developing graduate education indicators

Agency Priority Goal: FY 16 and FY17 STEM Graduate Student Preparedness

To provide multiple opportunities for students to acquire the knowledge, experience, and skills needed for highly productive careers, inside and outside of academe and to prepare them for multiple career pathways by providing support to:

- Encourage enhanced mentoring of skills;
- Encourage theory and/or evidence-based strategies to enhance and expand training in essential professional skills;
- Enhance interdisciplinary training and collaborations through development of activities that encourage graduate student preparedness for entering the workforce.

Responding to your concerns

Employment outcomes

- Take advantage of NCSES products and projects

Evaluating graduate student preparedness for the workforce

- Develop best practices to track program participants
- Identify gaps in our knowledge
- Support research to develop appropriate interventions to enhance preparedness