
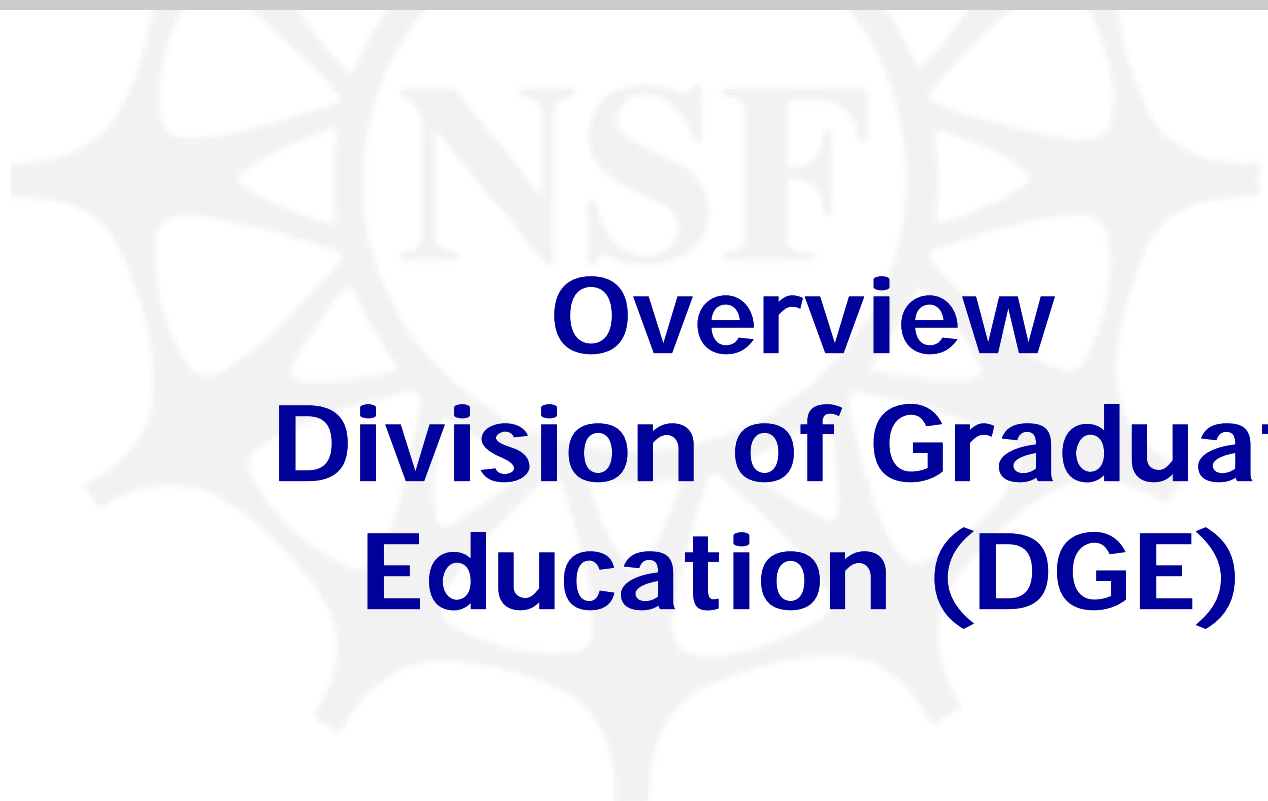




Overview

Division of Graduate Education (DGE)

**Carol Van Hartesveldt, Ph.D.,
Program Director, IGERT
Division of Graduate Education
National Science Foundation
Maine, 2008**

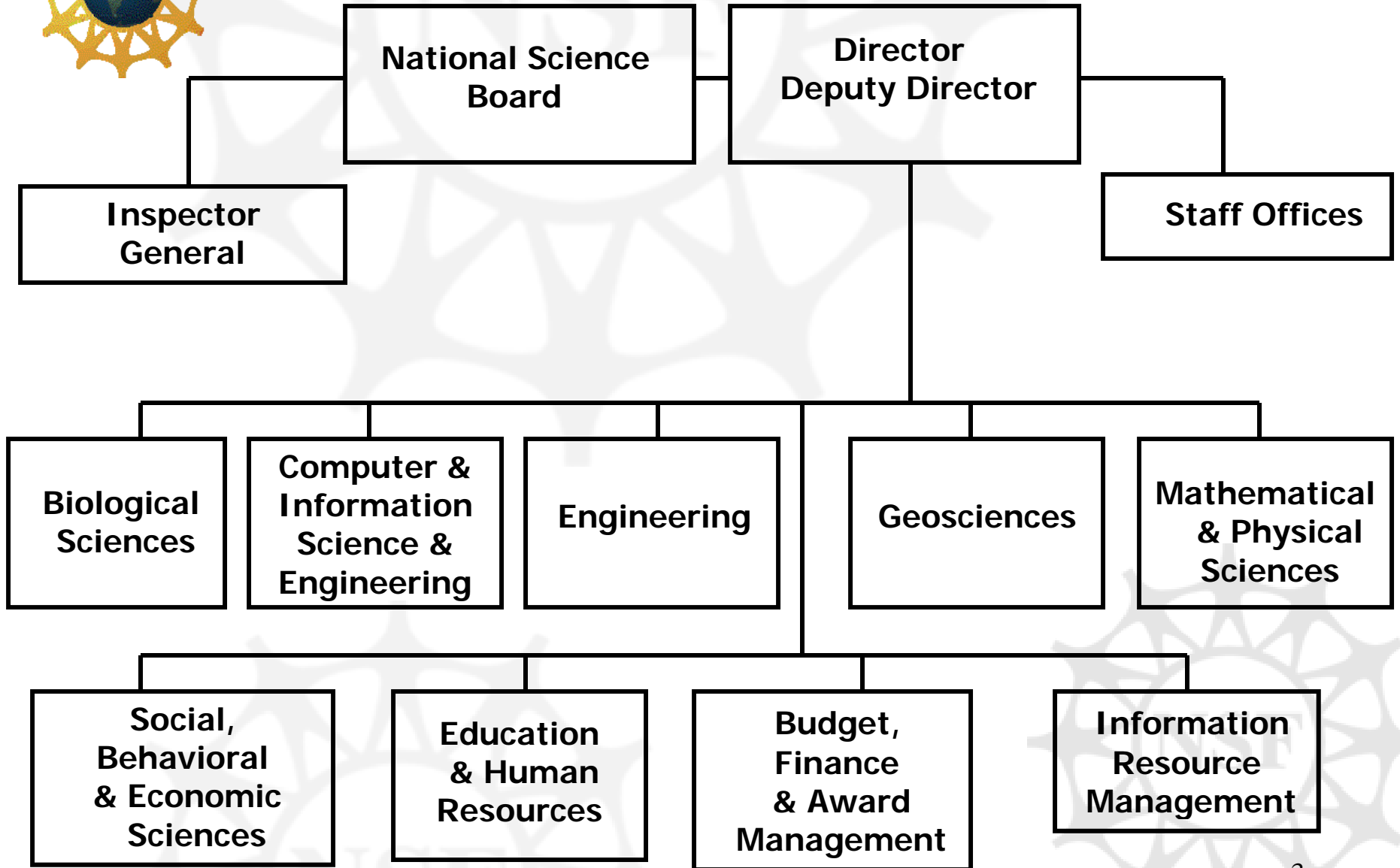


Presentation Outline

- Education and Human Resources Directorate
- Division of Graduate Education (DGE)
- DGE Programs
- IGERT



National Science Foundation



Directorate for Education & Human Resources (EHR)

Mission: To enable *excellence in U.S. STEM education* at all levels and in all settings in order to support the development of *a diverse and well-prepared workforce* of scientists, technicians, engineers, mathematicians and educators.

Transforming Education...
Promoting Excellence...

EHR Divisions

- Division of Undergraduate Education (DUE)
- Division of Research on Learning in Formal and Informal Settings (DRL)
- Division of Human Resource Development (HRD)
- Division of Graduate Education (DGE)

Division of Graduate Education (DGE)

- Today's graduate students are the scientists of the future who will keep America competitive.
- DGE programs strongly support graduate students as they engage in cutting-edge, state-of-the-art research in science and engineering.
- DGE programs act as catalysts to promote graduate education based on new science, emerging technologies, and the changing array of future career opportunities.

DGE Programs

- Graduate Research Fellowship Program ([GRF](#))
- NSF Graduate Teaching Fellows in K-12 Education ([GK-12](#))
- Integrative Graduate Education and Research Traineeship ([IGERT](#))
- Research on Graduate Education ([DCL](#))

GRADUATE RESEARCH FELLOWSHIP (GRF) PROGRAM

- Goal: To ensure the vitality of the human resource base of science and engineering in the United States and to reinforce its diversity. The program recognizes and supports outstanding graduate students in relevant science, technology, engineering, and mathematics (STEM) disciplines who are pursuing research-based master's and doctoral degrees, including women in engineering and computer and information science.
- Features
 - Portable (U.S. or foreign institution)
 - Flexible tenure options

NSF Graduate Research Fellowships

- Award Information
 - \$30,000 stipend per year for three 12-month tenure periods over five years
 - \$10,500 cost-of-education allowance per tenure year payable to the affiliated institution
 - \$1,000 one-time international research travel allowance
 - Honorable Mention for meritorious applicants
 - Facilitation Awards for Scientists and Engineers with Disabilities
 - Women in Engineering and Computer and Information Science Awards
- Value Add
 - Supercomputer usage
 - Prestige

NSF Graduate Research Fellowships

- Eligibility Requirements
 - U.S. citizen or permanent residents
 - Baccalaureate degree prior to Fall
 - Completion of fewer than twelve months of full-time graduate study
 - Graduate study in STEM disciplines supported by NSF
- Fellowship Applications
 - Personal profile
 - Personal essay
 - Previous research experience
 - Proposed research plan
 - Reference letters

NSF Graduate Teaching Fellows in K-12 Education (GK-12)

- General information:
<http://www.ehr.nsf.gov/dge/programs/gk12>
- GK-12 Project Database:
<http://www.nsfgk12.org>
- Goal: to provide catalytic opportunities for transforming U.S. graduate programs through sustainable partnerships with K-12 schools



GK-12 Fellows at Work

Multiplied Impact

- Value added to graduate students
 - Gain insights and a deeper understanding of their own research in a broadly based social context
 - Learn how to communicate to public about cutting-edge research and technological development
 - Acquire additional skills, including enhanced communications skills, teambuilding, time management, and organizational leadership
- Provide a professional development opportunity for teachers and keep them abreast with current STEM topics
- Provides institutions of higher education with an opportunity to make a permanent change in their graduate programs through sustaining strong partnerships with K-12 schools

GK-12 Fact Sheet

- Program is in its 10th year
- Provides \$30,000 stipend and \$10,500 COE
- Current number of projects: 146 (125 institutions)
- Number of awards/year: 23-36
- Between 600-900 Fellows supported every year
- Active Engagement with a broad spectrum of stakeholders
 - Projects in 47 states and Puerto Rico
 - 5,623 Graduate Fellows funded
 - 9,473 teachers supported
 - 687,594 K-12 students involved
 - 4,732 K-12 schools involved

NSF Integrative Graduate Education and Research Traineeship Program (IGERT)

- General information:
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12759&org=DGE&from=home
- IGERT website:
<http://www.igert.org>
- Goal: To provide training opportunities for U.S. Ph.D. students that feature:
 - Interdisciplinary cutting-edge research
 - Innovative educational programs
 - Inclusiveness
 - Global awareness



IGERT Trainees at Work

Unique IGERT Features

- Preparation for interdisciplinary research
 - Learning teamwork, crossing disciplines
- Preparation for a variety of careers
 - Academia, Industry, Entrepreneurship
- Preparation for a global future
 - International collaborative research and education

IGERT FACT SHEET

<http://www.IGERT.org>

- Program is in its 10th year
- Provides \$30,000 stipend and \$10,500 COE
- Total projects awarded: 215
- Number of awards/year: ~20
- Projects in 41 states, DC, and Puerto Rico
- Each year ~1500 trainees supported, average 10-12 trainees/site
- 2-stage competition, >400 preliminary and ~100 invited full proposals/year

Research on Graduate Education

- Research and Evaluation on Education in Science and Engineering (REESE) and DGE partnership to support research on Graduate Education
- Deadlines and general criteria same as REESE
- Dear Colleague letter found on NSF DGE web page

Questions on Programs?

- GRF: Dr. William J. Hahn
- GK-12: Dr. Sonia Ortega
- IGERT: Dr. Carol Van Hartesveldt
- REESE: Dr. Carol Stoel