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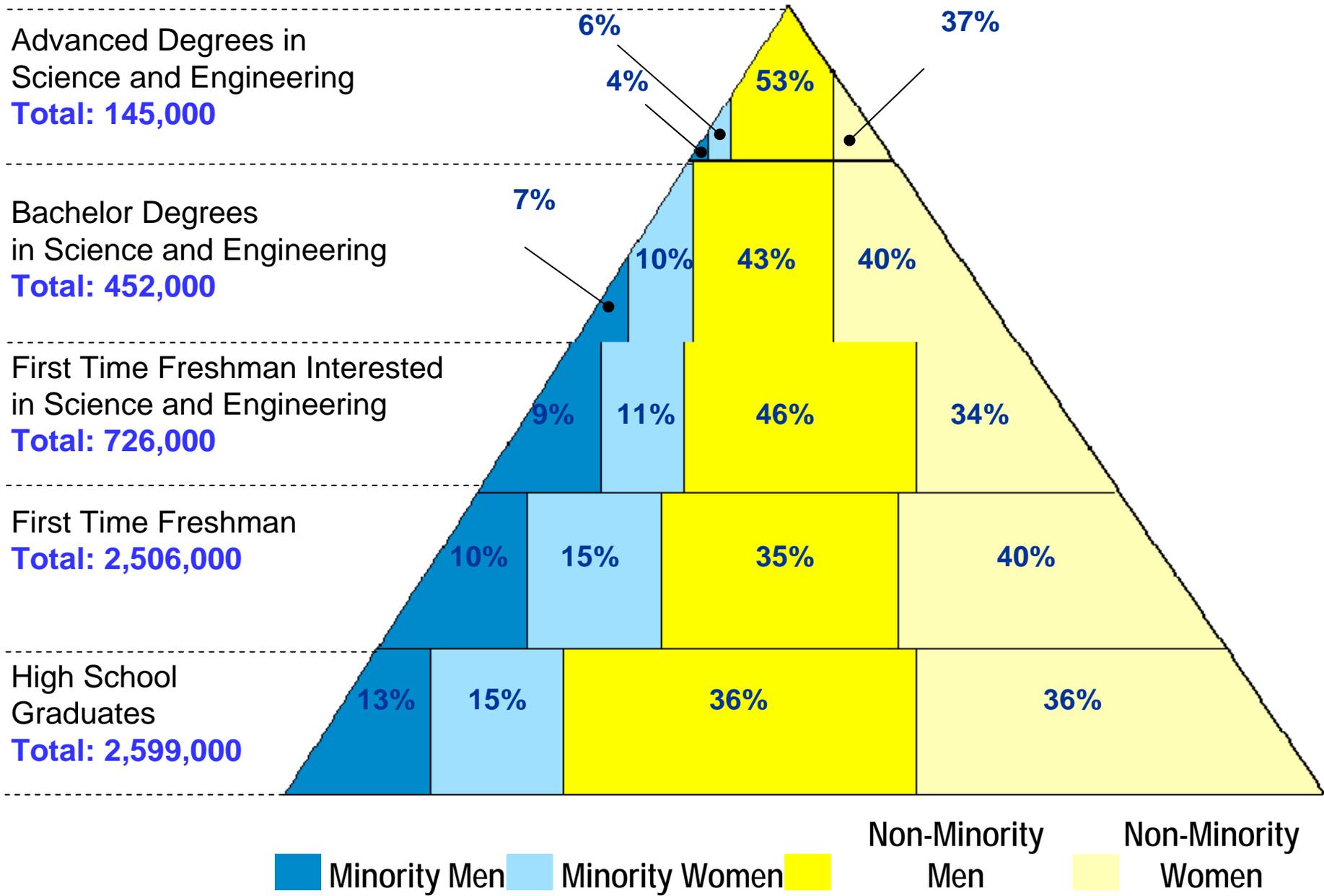


CAREER

Faculty Early CAREER Awards

NSF 08 -

# Milestones in Higher Education





About 27,000 Ph.Ds in STEM awarded annually

500 to African Americans

500 to Hispanics

40 to Native Americans



Of the 358,000 faculty in U.S  
16,000 are African American  
12,900 are Hispanic  
2,100 are American Indian

Of the 63,000 S&E Assistant  
Professors

2,600 are African American  
2,900 are Hispanic  
600 are Native American



# Tradition of Supporting Young Investigators

- NSF has a long tradition of supporting Young Faculty
  - ◆ Presidential Young Investigator (PYI)
  - ◆ New Young Investigator (NYI)
  - ◆ Presidential Faculty Fellows (PFF)

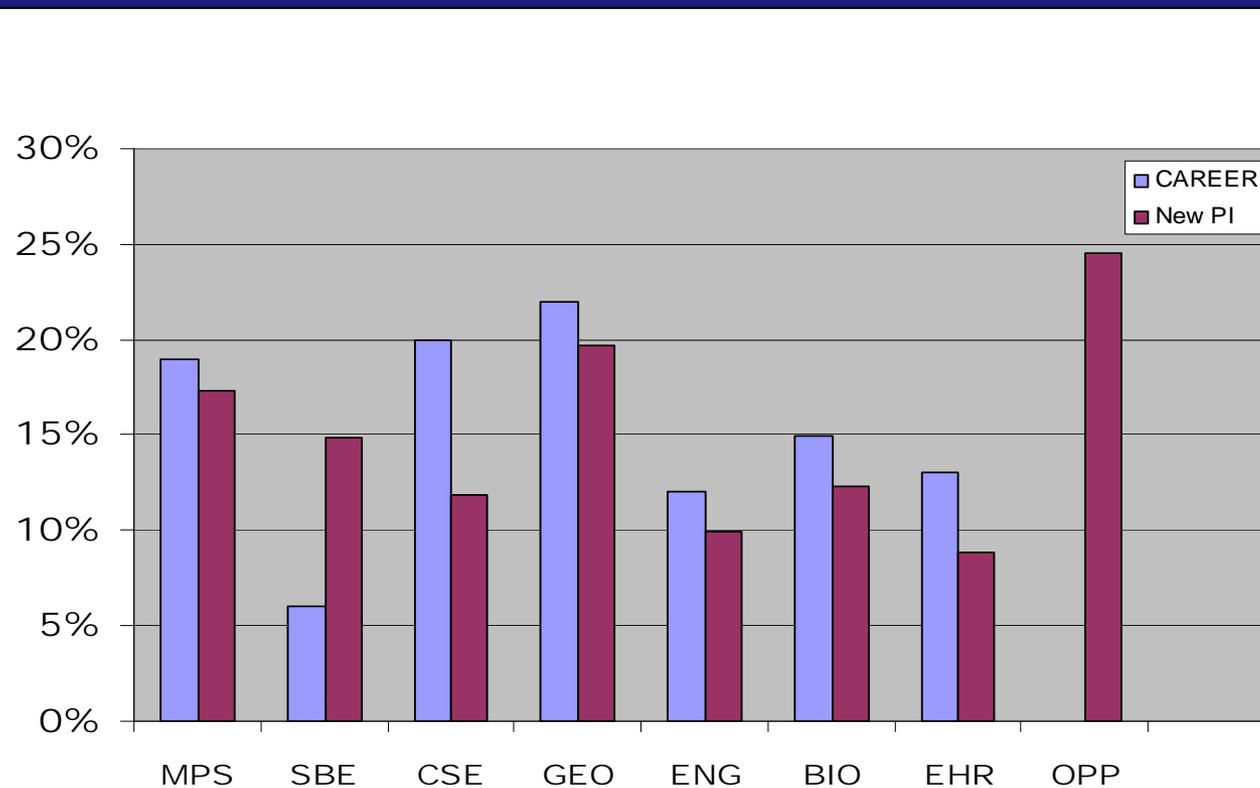


# Support for New Investigators

- All NSF programs support young investigators as part of the regular program.
- About 2/3rds of new investigators are supported by regular program.
- Some Directorates have special programs for young investigators
  - BIO Research initiation Awards



# New investigators: CAREER vs Other awards





## CAREER Is NSF Wide

- ❑ Over 4,000 CAREER awards in the past ten years
- ❑ All Directorates and about 180 programs accept CAREER Proposals
- ❑ 200 PECASE Awards at NSF



# CAREER 2006 Proposals

□ 2,500 + reviewed proposals

◆ ENG 757

◆ MSP 479

◆ CISE 549

◆ BIO 389

◆ GEO 86

◆ EHR 41

◆ SBE 104

◆ OPP 3



# What Is Special About CAREER

- ❑ NSF's most prestigious award for young faculty.
- ❑ The size and duration of CAREER awards are commensurate with the award's prestige.
- ❑ The Presidential Early Career Awards for Scientists and Engineers (PECASE) are selected from this group.



## CAREER Award Size

- ❑ CAREER minimum award size is \$400,000, except for BIO (minimum award size is \$500,000)
- ❑ All CAREER awards are 5 years
- ❑ For many programs, this is large; for all programs it is a long award



# CAREER Program Goals

- Provide stable support at a sufficient level and duration for outstanding new teacher-scholars in the context of the mission of their organization.
- Build a foundation for a lifetime of integrated contributions to research and education



# CAREER Goals

- ❑ Increase participation of those traditionally underrepresented in science and engineering.
- ❑ Provide incentives to Universities to value the integration of research and education



# Eligibility Criteria: who can apply

- At the time of proposal submission
- ❑ Hold a doctoral degree in a field supported by NSF
  - ❑ Be untenured
  - ❑ Hold title Assistant Professor
  - ❑ Have not previously received an NSF PEACASE or CAREER award
  - ❑ Have not had more than two CAREER proposals reviewed



# Eligibility Criteria

By October 1st following the CAREER deadline the PI must be:

- ❑ Employed in a tenure-track (or equivalent) position at an eligible institution as an Assistant Prof.
- ❑ Associate Professors without tenure are NOT eligible
- ❑ IF someone gets tenure or promoted after Oct 1, OK



# Institutional Eligibility

- Assistant Professors at any Institution of Higher Education are eligible
- Similar rank persons at Museums or Research organizations may apply if they have substantial educational responsibilities
- NSF encourages proposals from Community College, Minority Serving and Undergraduate Colleges



# CAREER personnel and budgets

- No co-principal investigators or other senior staff are allowed
- Consultants, subawards are allowed
- Some programs will support buy out of academic year time (check)
- International activities are encouraged and may be supported by the Office of International Science and Engineering (OISE)



# What is CAREER Proposal

- Compelling Research Plan
- Innovative (but doable) Education Plan
- Plan for integrating Research and Education



# What needs to be in a proposal

- ❑ A description of the proposed research, including preliminary data where appropriate, specific objectives, methods and procedures, expected significance of the results,
- ❑ A review of relevant literature,
- ❑ A description of the proposed educational activities,
- ❑ A description of how the research and educational activities are integrated,
- ❑ Results of prior NSF work if applicable.



# Education Plan

Often includes one or more of the following:

- Revision of Undergraduate courses
- Involvement of undergraduate or graduate students in research
- Work with K-12 Schools
- Community Outreach/media/public affairs/museums etc



## Contents of Education Plan

- Work should go beyond what is expected of an Assistant Professor
- Should not be unreasonable
- Not "education research" for most
- Should have a plan for assessing goals
- Should think of education as an intellectual activity



# Integration of Education and Research

- Bring the excitement of research to education
- Involve students with new, innovative research in the disciplines
- Enhance research through educational activities



# Departmental Endorsement

Must include the statement:

I have read and I endorse this career development plan. I attest that the PI's career development plan is supported by and integrated into the educational and research goals of the department and the institution. I personally commit to the support and professional development of the PI."



# Departmental Endorsement

- A description of the support that the department and/or institution will provide.
- Verification of the CAREER eligibility information that the PI self-certifies in the application process.



# What can not be in a proposal

- Appendices
- Other letters of support or reference
- Extra pages in the project description



## Supplementary Documents

- Letter from the Chair
- Short letters of commitment of resources
- Short letters of commitment to participate in advisory committees or as consultant



Successful CAREER proposals are consistent with Program Goals

- ❑ Proposals are submitted to a disciplinary unit or program
- ❑ CAREER proposals are reviewed by Programs under program guidelines.
- ❑ Sometimes reviewed in same panel; often by same reviewers as regular grants.



# Review of Proposals

- Intellectual Merit
- Broader Impact



## Other review considerations

- ❑ Departmental endorsement,
- ❑ Consistency of scope of education/research and award size and duration,
- ❑ Consistency with disciplinary program research and educational goals.



## Success Rates

- NSF-wide - Success Rates for Men, Women and Minorities are similar
- NSF-wide Success Rates (including CAREER) declined in the period of 2001-2005 but are now slightly up
- Funding rates for CAREER varies by Directorate - follows trend for regular proposals



# Success Rates

## □ Highly Competitive Program

FY 2001 23%

FY 2002 23%

FY 2003 20%

FY 2004 20%

FY 2005 16%

FY 2006 16%

FY 2007 18%



## PECASE

- ❑ 20 nominees for the Presidential Early CAREER Awards for Scientists and Engineers (PECASE) are nominated by program officers from new CAREER awardees .
- ❑ Slots given to Directorates based on number of PECASE eligible proposals
- ❑ U.S. Citizen or Permanent Resident



# Due Dates

- July 22
  - ◆ BIO, CISE and EHR
- July 23
  - ◆ Engineering
- July 24
  - ◆ GEO, MPS, SBE and OPP