



NSF CAREER Awards

Guide to the NSF CAREER Application Grant process



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Housekeeping Items



Mute button

- Please stay muted unless asking a question or entering a discussion

Chat Box

- I'll address questions at stopping points in the presentation

Recording

- We are recording the workshop
- We will post it online for your reference

Slides

- We will email PDF of slides to everyone after the workshop



Research Development Services

Funding Related Services

Funding searches and strategy

Pivot trainings

Internal funding programs coordination

Proposal Services

Checklists and templates

Critique and copy-edits

Guidance on funding guidelines

Other Services

Oversee limited submissions - internal competitions

Institutional support coordination and letters



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CAREER Workshop Agenda

-  Solicitation
-  Proposal Preparation
-  Review Criteria
-  Common Mistakes
-  Resubmission





NSF CAREER SOLICITATION



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Basic Information and Links

- ▶ Solicitation 20-525 and FAQs
- ▶ Due Date: Fourth Monday of July
- ▶ Project Time Period: 5 years
- ▶ Project Costs:
 - Min. of \$500K for BIO, ENG, Polar Programs
 - Min. of \$400K for all other programs
- ▶ Apply to any appropriate NSF division



Eligibility

- ▶ Hold a doctoral degree
- ▶ Untenured as of Oct. 1 following deadline
- ▶ At least 50% tenure track position or equivalent
- ▶ Assistant professor or equivalent
- ▶ Must work at US organization (citizenship not required)
- ▶ No co-PIs allowed
- ▶ Only 3 chances to apply



Purpose: Career Development

Fostering Next Generation of Leading Researchers and Educators

Features: Holistic & integrated education and research plans

Promote institutional change in teaching and research

Highly prestigious

Eligible for PECASE

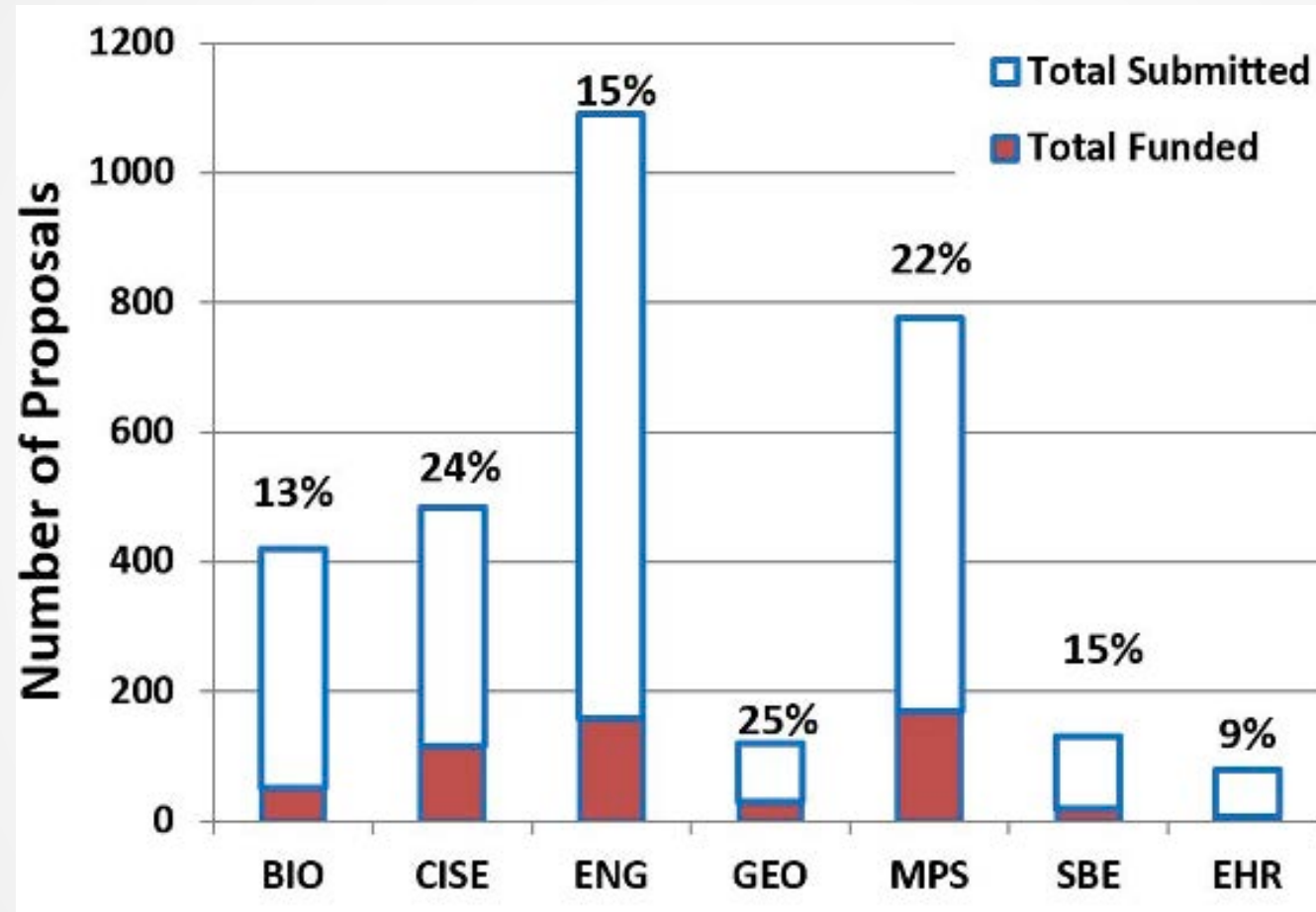


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PROPOSAL PREPARATION

NSF CAREER Proposals Submitted & Awarded in 2017



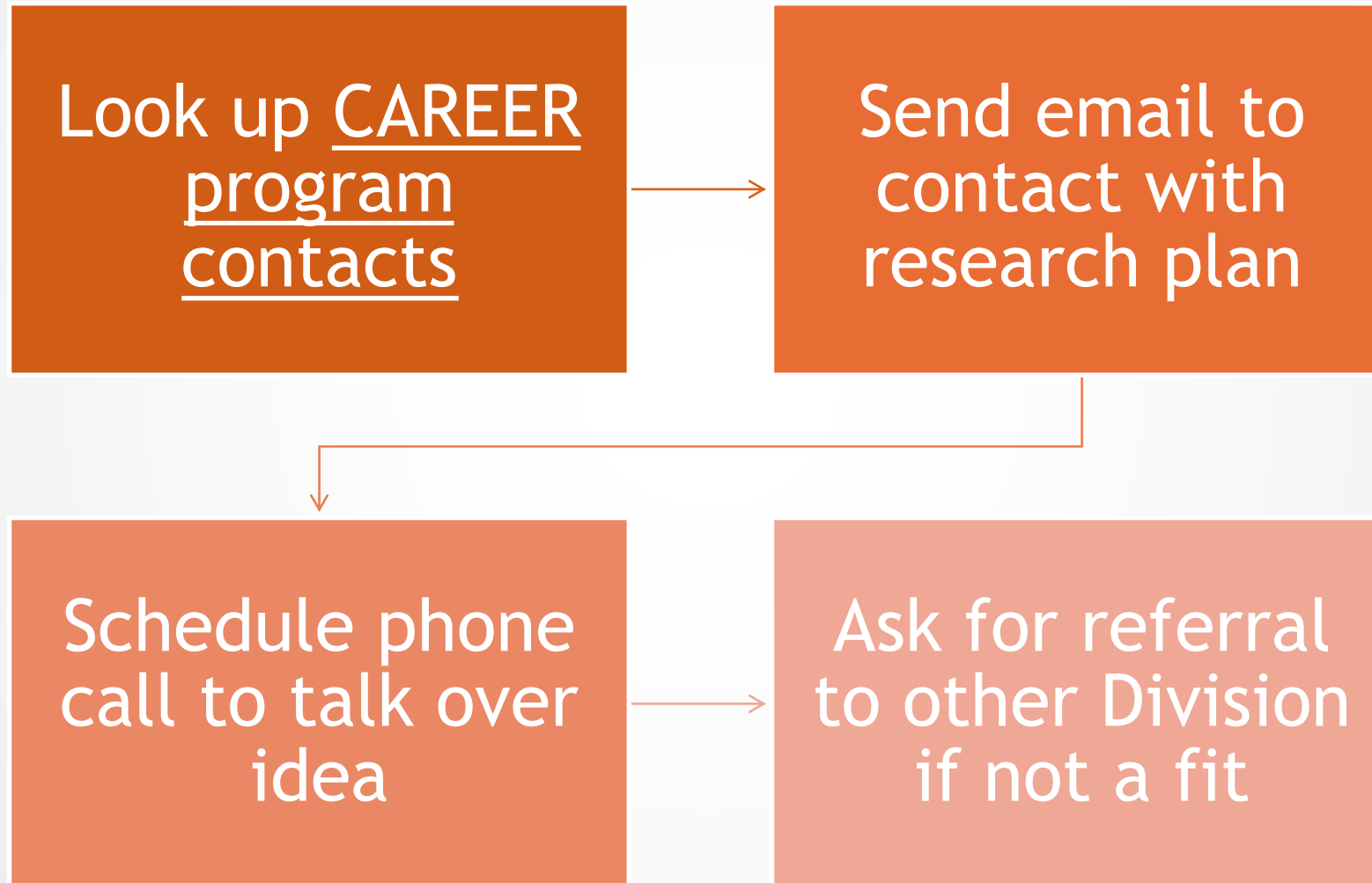
Credit to Academic Research Funding Strategies, LLC for this slide.



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Find the Appropriate Division



Identify and Communicate with Partners

Identify
collaborators

Find peers to
review your
draft

Notify your
Department
Chair

Notify
Sponsored
Project Services



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Understand What Success Looks Like

Talk with
successful PIs

Read examples
of successful
proposals

Serve as a
review
panelist



UO NSF CAREER RESOURCES



RDS - Checklist and Templates



RDS - Facilities and Resources Boilerplate



RDS - External Review of Proposals



UO Libraries - Data Management Plan Tool



UO STEM CORE - Grant Support

PROPOSAL COMPONENTS



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Unique Application Components

- ▶ Project title must begin with CAREER
- ▶ Narrative: Career Development Plan
 - ▶ Research Plan
 - ▶ Education Plan
 - ▶ Integrated Research and Teaching
- ▶ Department Chair Letter



Department Chair Letter

- ▶ Verifies PI eligibility
- ▶ States that CAREER activities advance educational and research goals of department and organization
- ▶ Describes relationship between CAREER project, PI's career goals, and mission of department and university
- ▶ Ensures appropriate mentoring of PI throughout award



Project Description

- ▶ Introduction, overview, objectives, significance
- ▶ Background (including lit review)
- ▶ Preliminary results/prior work
- ▶ Experimental plan/research plan/methodology
- ▶ **Education plan (3-4 pages)**
- ▶ **Broader impacts**
- ▶ Timeline



RESEARCH PLAN



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Research Idea

- ▶ Identify a 5-year idea focused on *basic research*
- ▶ Envision the idea as a *project*
- ▶ Is it novel and cutting edge?
- ▶ Does it address important questions in your field?
- ▶ Will it lead to a fertile lines of research?
- ▶ Will it contribute to your research agenda and career goals?
- ▶ Will it contribute to your department's goals?



Research Plan

Need/Motivation

- Goals
- Gaps in Knowledge

New Knowledge

- Hypotheses
- Research Questions

Approach

- Objectives
- How is it Different

Significance

- Outcomes
- Impact

Project Readiness

Background & Resources for Project

Questions: Do you have publications in topic?

Does your lab have right staff and equipment?

Do you have preliminary data ready?

How many years until you lose eligibility?



EDUCATION PLAN



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Education Plan

- ▶ Have one main idea
- ▶ Match your true interests
- ▶ Connect with your research area
- ▶ Connect to current educational goals/activities
- ▶ Fit your students, department, institution, discipline
- ▶ Address diversity as defined in solicitation



Effective Plans...

- ▶ Clearly describe goals and objectives
- ▶ Are informed by literature
- ▶ Build on prior related work
- ▶ Include a plan for activity with details and logistics
- ▶ Include assessment and dissemination plans
- ▶ Include associated costs in budget



REVIEW CRITERIA



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CAREER Review Criteria

- ▶ Intellectual Merit: The potential to advance knowledge
- ▶ Broader Impacts: Advance desired societal outcomes
- ▶ Department support for candidate
- ▶ Integrated research and education plans
- ▶ Education plan goes beyond typical expectations for assistant professor



NSF CBET CAREER Mock Panel



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COMMON MISTAKES



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Reasons for Declined CAREER Proposals #1

- ▶ Not finding the right directorate
- ▶ Treating CAREER proposal like as a regular proposal
- ▶ Failing to get out of the Ph.D./Postdoc advisors' shadow
- ▶ Failing to express a compelling scientific question
- ▶ Failing to provide a clear, reasonable research plan answering this question

Reasons for Declined CAREER Proposals #2

- ▶ Repeating words like “novel” or “innovative” without substantiating them
- ▶ Proposing incremental research
- ▶ Making the proposed work too broad or too narrow
- ▶ Proposing an impossibly large amount of work

Reasons for Declined CAREER Proposals #3

- ▶ Overlooking that education, mentoring, teaching, outreach are part of a successful academic career
- ▶ Failing to integrate education/outreach activities in a meaningful and sensible way to research activities
- ▶ Failing to include an assessment of educational activities
- ▶ Ordinary, uninspired education plans

RESUBMISSION



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Addressing Reviewer Feedback

Carefully Read Reviewer Remarks

Questions: Were the reviewers confused?

Did they express particular concerns?

Was your research idea significant?

Was the topic not a good fit for program?



Moving Forward

- ▶ Ask the Program Officer for clarification of remarks you do not understand
- ▶ Attend directorate or division specific workshops on the CAREER program
- ▶ Volunteer to be a reviewer yourself



QUESTIONS?

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