

The logo for the NSF CAREER Program features a central blue globe with white outlines of continents. The globe is set against a larger, light yellow gear-like background with a complex, multi-toothed pattern. Overlaid on the globe is the text 'NSF CAREER Program: A gateway to get faculty hooked on BI' in a bold, dark blue, sans-serif font. The letters 'NSF' are significantly larger and more prominent than the rest of the text.

**NSF CAREER Program:  
A gateway to get faculty  
hooked on BI**

**NSF**

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UC Berkeley Office of Research Development

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# Introductions

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- **Who's in today's session?**
- **From what institutions?**
- **Describe your institution**
  - Size (small, med, large)
  - Public vs. private
  - MSI?
  - Where your office resides within institution
- **One thing you want to learn today**

# Agenda

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- **Part I**

- CAREER basics
- How CAREER differs from other awards
- How to best to support faculty in planning/  
writing their CAREER proposals
- Dispelling common CAREER myths and areas of  
confusion

# Agenda

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- **Part II**

- Why implement a CAREER training program?
- Models for programs across the spectrum

- **Part III**

- Group discussion about developing a program that fits your institution
- NABI support for CAREER training

# Part I: CAREER what & why

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CAREER is NSF's most prestigious (and competitive) award for junior faculty.

## Purpose

- Support junior faculty who exemplify the role of **teacher-scholars** through outstanding research, **excellent education** and the **integration of education and research**.
- Build a firm foundation for a lifetime of leadership in integrating education and research, **where research is enhanced by inspired teaching and enthusiastic learning**.

# CAREER is **different**

- A **career development award**, not just a research award.
- Faculty must be **non-tenured** as of Oct 1<sup>st</sup> following July submission.
- **Education plan is required.**
- **Research and education** must be **integrated and/or synergistic.**

# CAREER **proposal** is different, too

- PI should be front and center. Use first-person (e.g., “I, me, my research group, we”).
- Refer to experiences that have informed PI’s approach to teaching, learning, and mentoring.
- Avoid provisional tone; be definite (e.g., “*I will..., I’m equipped to..., I intend to...*”).
- Structure of education plan is similar to that of the research plan. Apply same rigor to it.

# What do faculty need help with?

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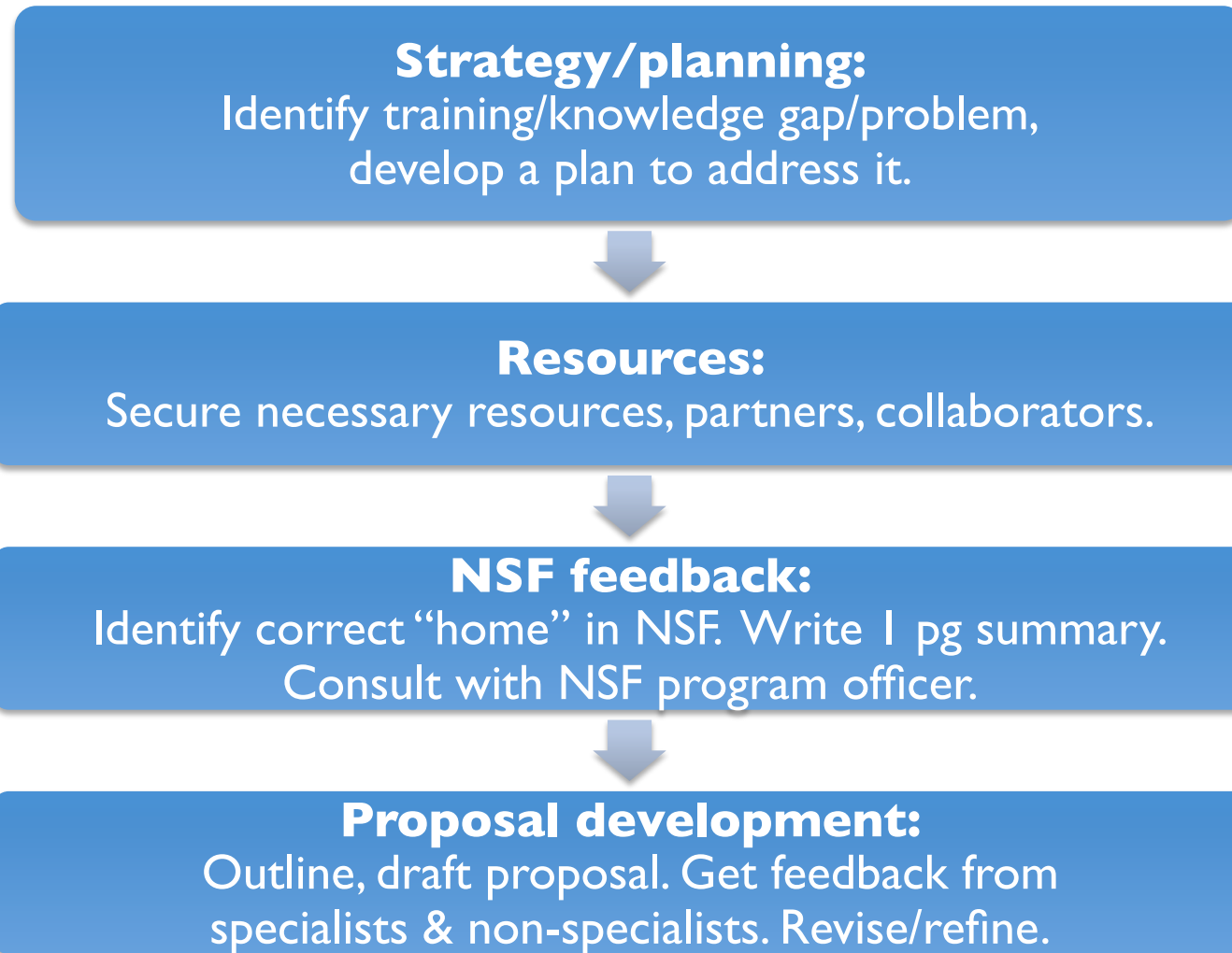
1. Timing, planning, steps
2. Navigating NSF, understanding NSF's expectations
3. Navigating campus, accessing resources, identifying appropriate partnerships
4. Proposal development



# I Timing/planning

- **Timing:** When is a PI ready to submit? Can apply up to 3 times. Considerations: familiarity with campus, tenure schedule, personal goals, professional/personal commitments.
- **Steps:** Break down/itemize steps and tasks that must be accomplished to develop a competitive proposal.
- **Timeline:** What is a realistic proposal timeline?

# Planning Steps



## 2 Navigating NSF

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- NSF structure/organization
- Expectations, review processes within different directorates and divisions
- Interaction with NSF program officer
- NSF priorities, particularly in broadening participation and workforce development
- Body of literature on best practices in pedagogy, mentoring, broadening participation

# NSF's Advanced Search Tool

### Awardee Information

**Principal Investigator First Name**

**Principal Investigator Last Name**

**HINT:** Including the Co-Principal Investigator will result in slower searches.

**Include Co-Principal Investigator**

**Organization**

**State**

**Zip Code**

**Country**

### Program Information

**NSF Organization**

**Element Code**

**Any**  **All**

**Reference Code**

**Any**  **All**

**HINT:** The "Program" box searches both program element and program reference names and codes.

**Program**

**Program Officer**

### Additional Information

**Keyword**

**HINT:** The Keyword field searches on the title and abstract only.

**Search Award Title Only**

**Award Number**

**From** **To**

**HINT:** Data prior to 1976 may be less complete.

**Active Awards**  **Expired Awards**

**Original Award Date**  **From**  **To**

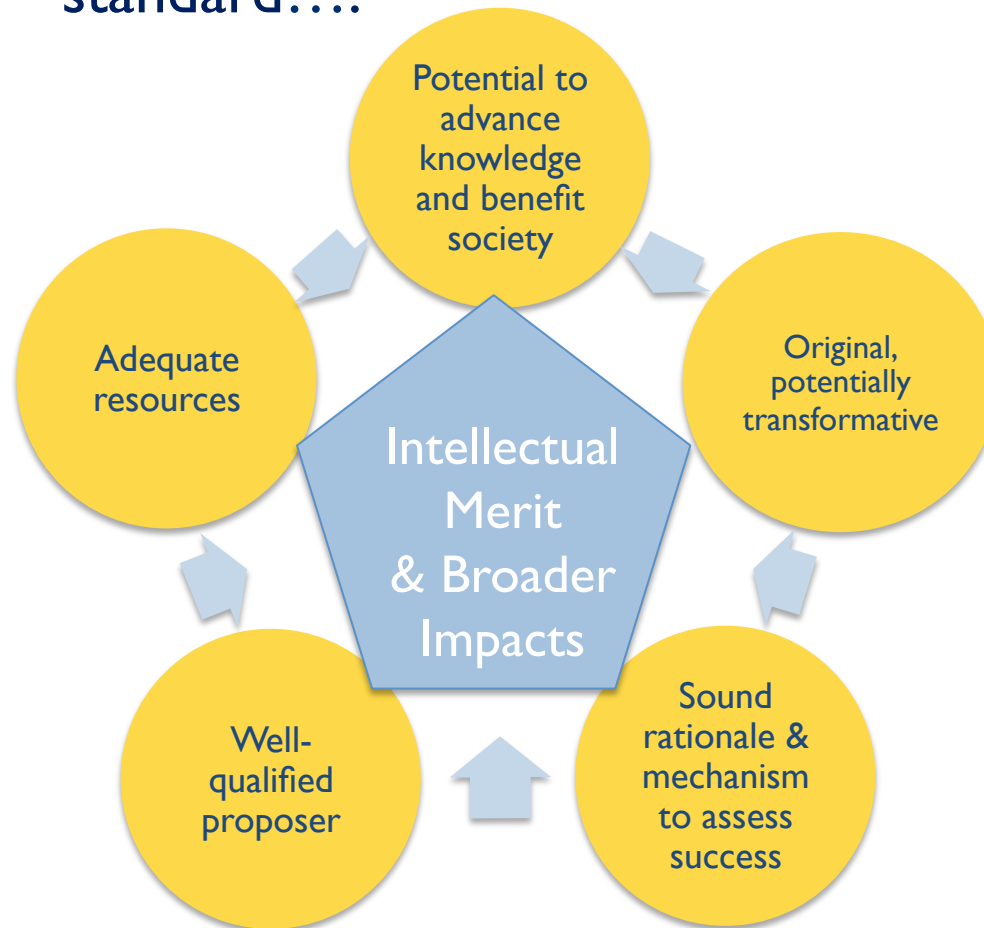
**Start Date**  **From**  **To**

Code for CAREER: 1045

<https://www.nsf.gov/awardsearch/advancedSearch.jsp>

# Understand NSF's review criteria and processes

While **review criteria** are standard....



Review **processes**,  
Reviewer **selection**,  
and review **expectations**  
are not!

# Consult an NSF program officer

Recommend that *all* CAREER proposers contact a program officer to get feedback on their proposed research/education plans.

- Target the “right” program officer
- Prepare one-page summary
- Email PO, request meeting (phone/in-person)
- Prepare questions in advance
- Take notes during the meeting
- Follow up, check in judiciously

# 3 Navigating campus

- Overview of campus BI infrastructure, resources
- Examples of successful education partnerships
- Potential partners (on and off campus), contacts, introductions
- Evaluation mechanisms & resources that are simple to implement and inexpensive

# 4 Proposal development

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- Framing/scope for education activities match expectations of the directorate/division
- Integration of research & education
- Evaluation plan & timeline are included
- Budgeting for education activities is realistic
- Separate BI section is included in project description
- Supporting docs highlight BI expertise, involvement, effort



# Supporting documents are not filler!

- **Departmental letter**—Must show strong departmental commitment to both research and education components. *A good letter is critical!*
- **Biographical sketch**—use Synergistic Activities (section d) to document teaching, training, service accomplishments.
- **Budget, budget justification** must be consistent with nature and scope of proposed activities.
- **Letter of Collaboration** from partner/collaborator (Careful! *LOC may not endorse PI or project*).

# Common (and vexing) questions

- What **weight does the NSF assign to the merit review criteria** – Intellectual Merit and Broader Impacts?
- What **number and scope of educational activities** is expected?
- How important is **originality versus the tried-and-true?**
- What level of **effort and financial commitment** does the NSF expect for the education activities?

# Part II Agenda

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- Why implement a CAREER training program?
- Most common mistakes/pitfalls
- Models for programs across the spectrum

# Why implement a CAREER training program?

- Benefits young PIs & preps them for future
  - Helps develop their awareness, expertise & confidence
  - Stimulates ideas for engaging their grad students & post-docs
  - One of NSF's most prestigious awards
- Improves likelihood of effective BI programming
- Helps bring in \$\$funding\$\$ for PI and institution

# Why implement a CAREER training program?

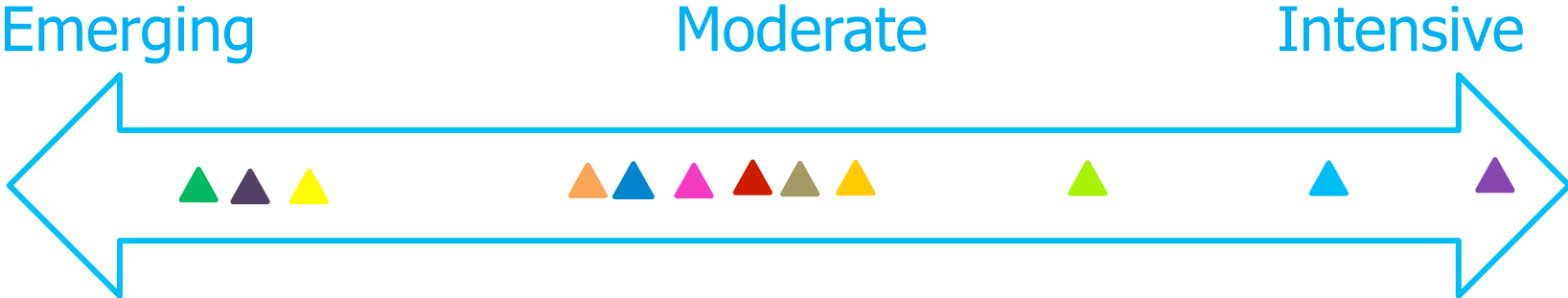
- Raises awareness of your office and the resources it provides
- A good way to encourage PIs to participate in programs or activities your office/ institution sponsors
- CAREER Program is very competitive (17% success rate)
- As BI Professional, you will learn a lot!







# Why implement a CAREER training program?







- Helps PIs avoid the most common mistakes\*
  - Education component is generic and what is expected of all PIs
  - Unrealistic education activity
  - Reinventing the wheel
  - Research and education plans are not aligned or integrated
  - Lack of understanding of what is effective in education
  - Not highlighting BI that goes beyond education

*\*according to NSF*

# The CAREER training continuum

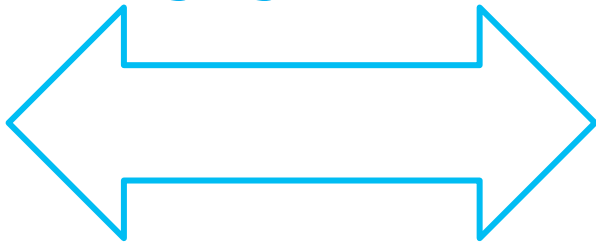


- Arizona State 
- Brown 
- UC Berkeley 
- U of Iowa 
- U Missouri 
- Northwestern 

- Oregon State 
- U Pennsylvania 
- Rutgers 
- Stanford 
- U Tennessee 
- U Wisconsin 

# The CAREER training continuum

Emerging



Features:

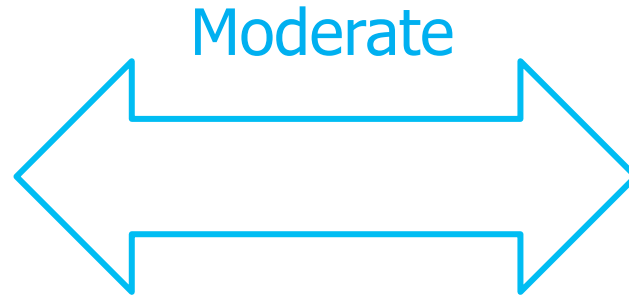
- Typically small office (1 FTE)
- Offer resources on website
- 1 on 1 help as requested
- Perhaps intro training session

Examples:

- Oregon State undertook multi-year effort to launch a Research Impacts Network
- U.Tennessee offers website with resources developed at other institutions
- U.Texas Dallas website links to resources from NABI Summits



# The CAREER training continuum



## Features:

- Multiple training sessions
- Assistance with literature review
- Provide some boilerplate
- Share previous successful proposals
- Review/editing pre-submission
- Recommend evaluation expert/resources
- Track results

## Examples:

- U Arizona offers extensive website, a number of workshops & CAREER recipient panel
- Stanford offers resources to help PIs with outreach logistics & menu of ideas

# The CAREER training continuum

## Features:

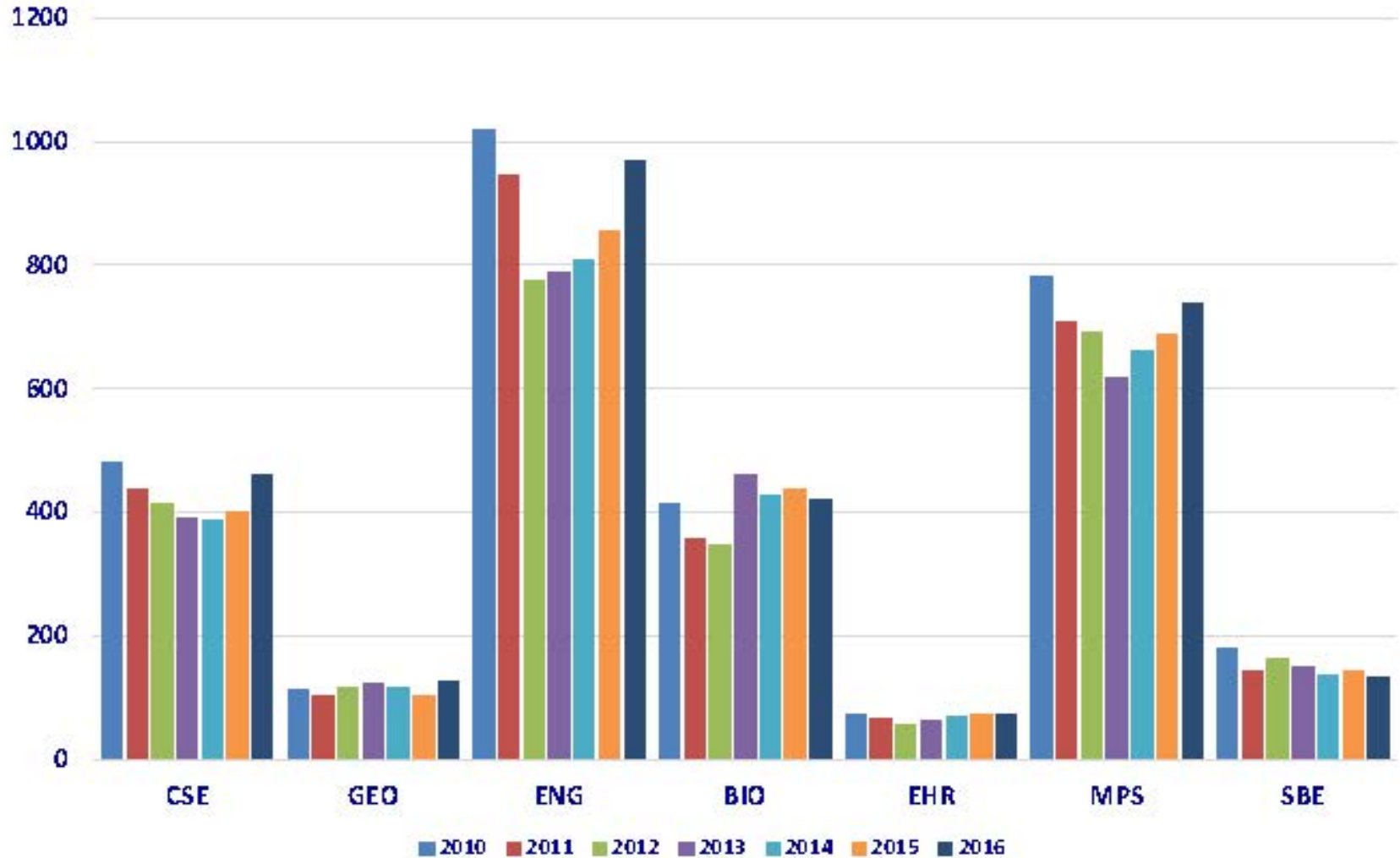
- Formal MOU
- Multiple training sessions over many months
- Peer review process
- Formal review pre-submission
- Help with evaluation plan
- Make suggestions based on reviewers' comments for failed proposals
- NSF Mock Review Panel



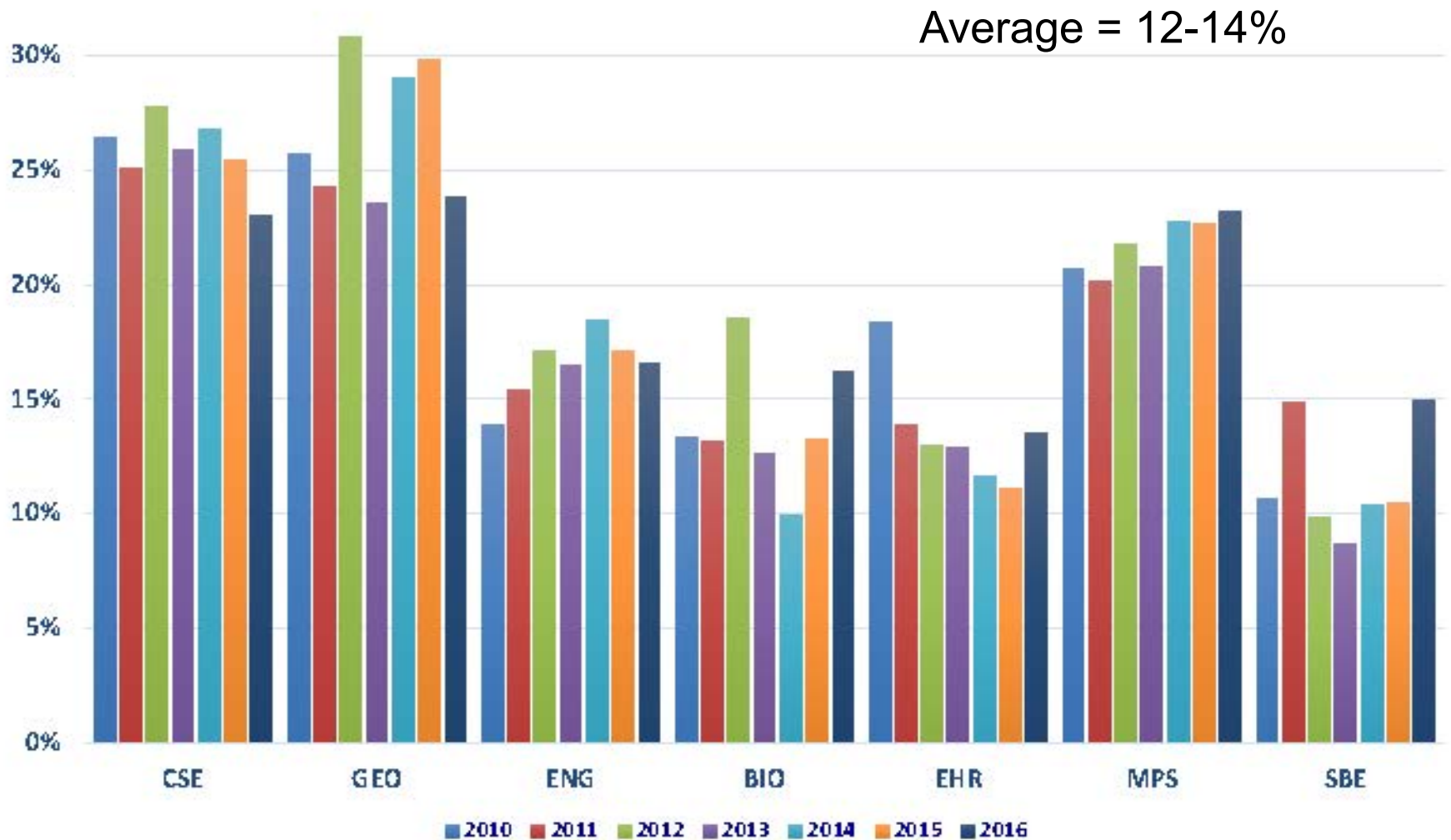
## Examples:

- Brown had 100% success rate of funding for PIs who attend training & Mock Review Panel
- Northwestern also helps implement & evaluate (staff of 10+ FTE)
- U Missouri requires PIs to sign MOU & provides step-by-step timeline and worksheet
- Arizona State arranges visits to NSF Program Officers

# Number of CAREER proposals by NSF Directorate



# CAREER funding rate by Directorate



# Part III Group Discussion

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- Developing a CAREER training program that fits your institution:
  - Where are you now?
  - Where would you like to be eventually?
  - How can NABI help?

**Thoughts? Questions?**