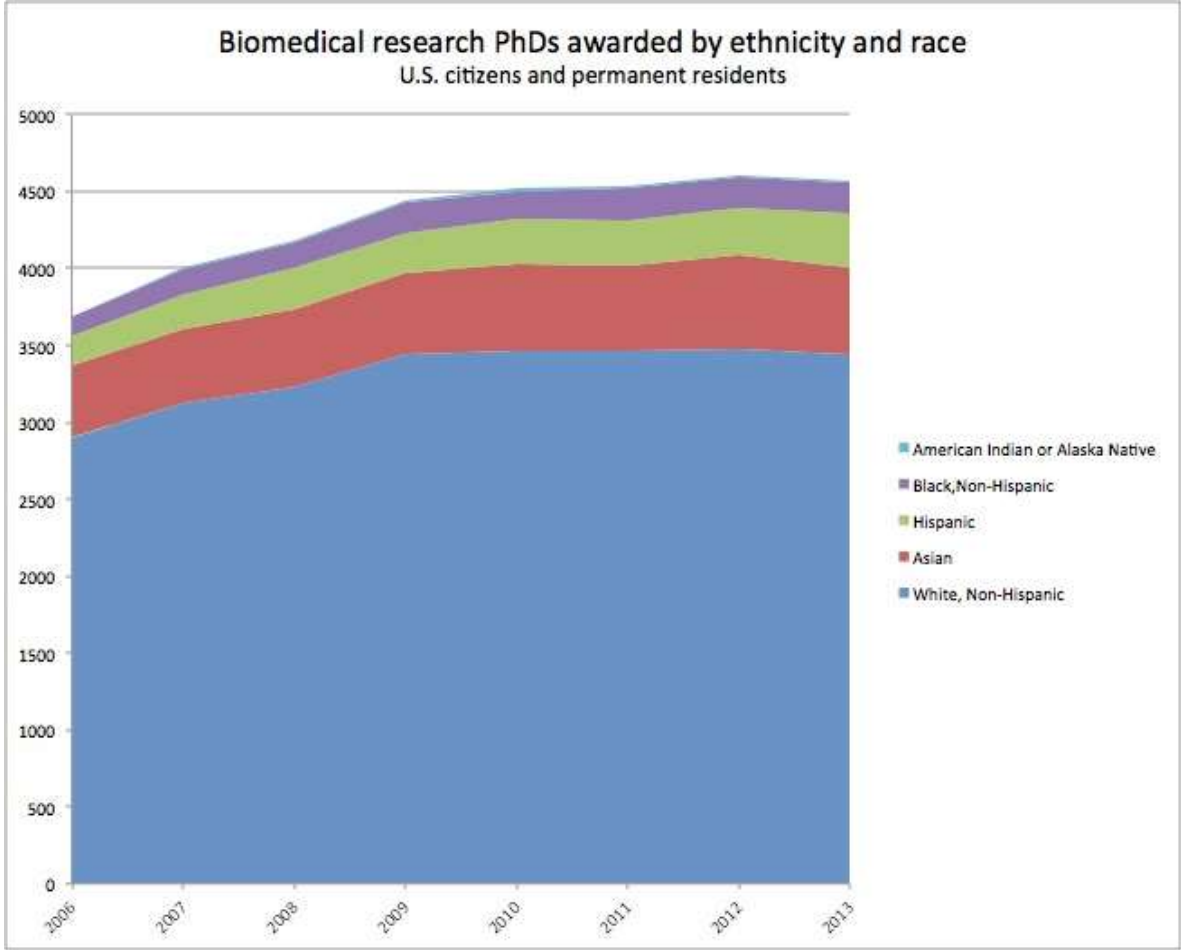


Structure of the Presentation

- Overview on Biomed Research workforce.
- The BEST Consortium, nationwide.
- A quick look at the Vanderbilt BEST (ASPIRE) Program.

What governs the Composition and Size of the Biomed workforce?

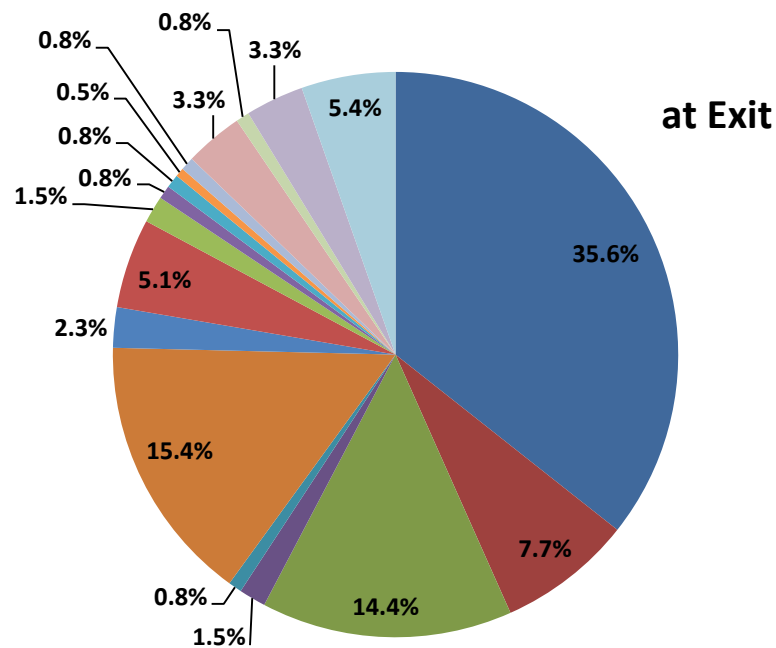
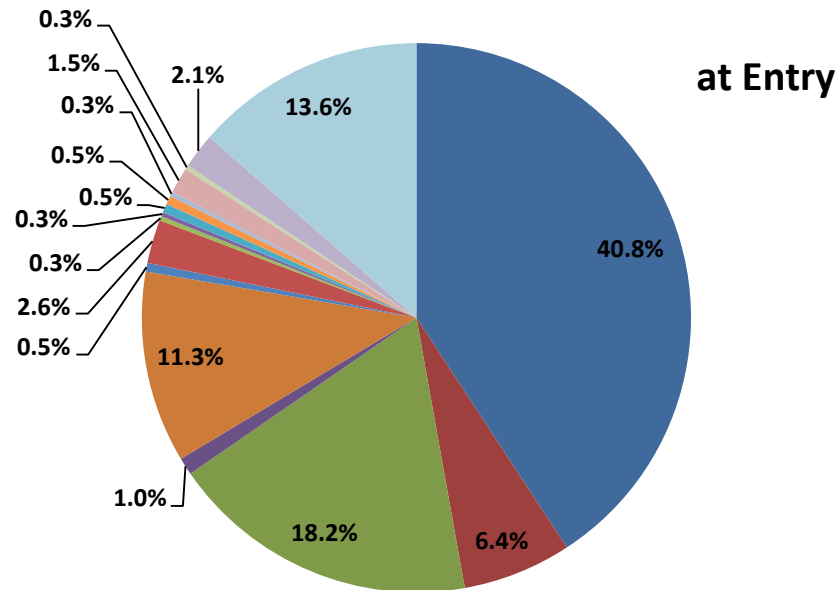
- The Biomed Workforce is made up of graduate students and postdocs.
- The number of these individuals is governed by the NIH extramural Budget, currently about \$30B. The specific driver is RO1 support (ca. \$18B).
- It is hard to see this increasing in the next decade



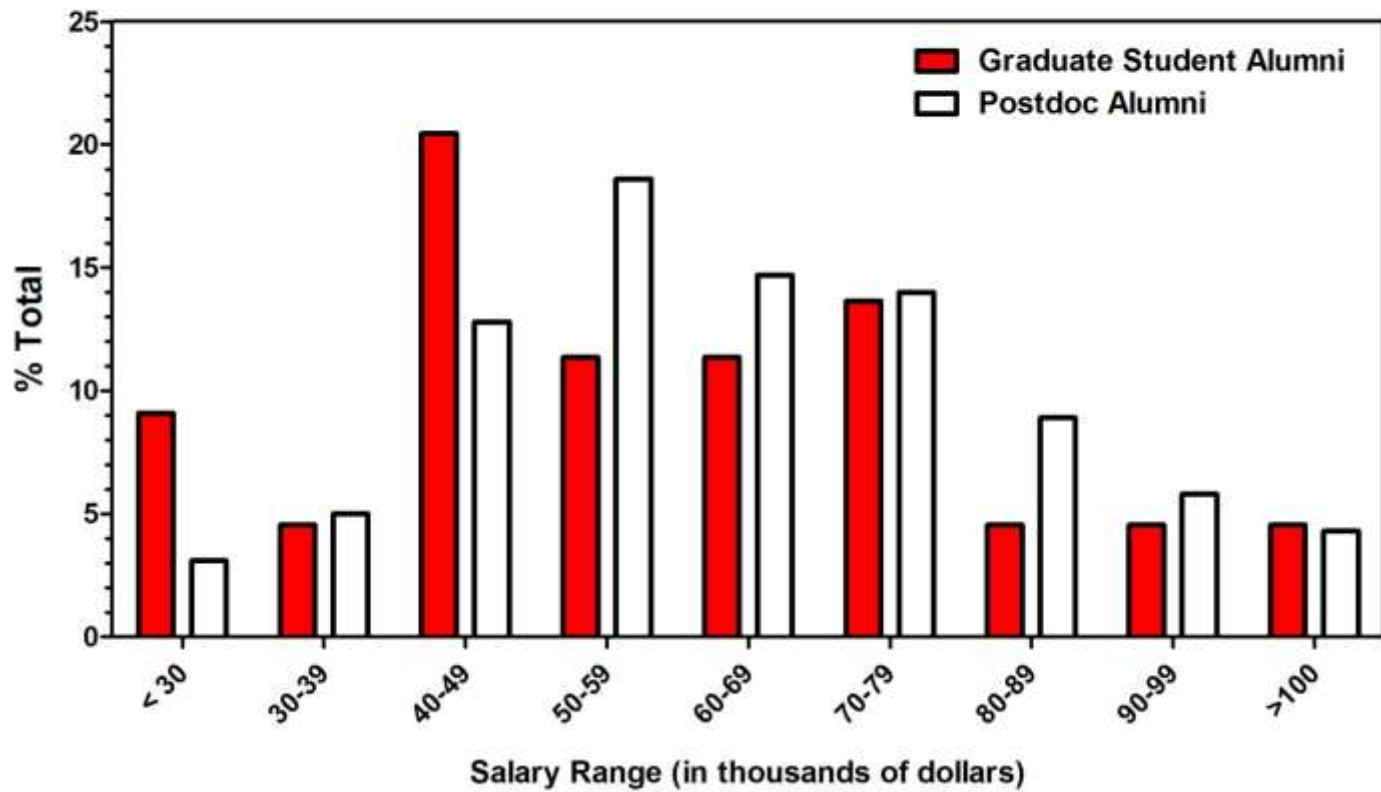
Using data from NSF SED

Baseline: Postdoc Career Goals

- Faculty position in academia (primarily research)
- Faculty position in academia (primarily teaching)
- Faculty position in academia (research & teaching)
- Faculty position in academia (research & clinical care)
- Academic research staff
- Industry (research position)
- Industry (non-research position)
- Government or nonprofit lab (research position)
- Government or nonprofit lab (non-research position)
- Science or medical writing/editing/publishing
- Science policy
- Patent law
- Science outreach/K-12 education/teaching
- Other
- Clinical laboratory research / administration
- Physician or physician-scientist
- Undecided



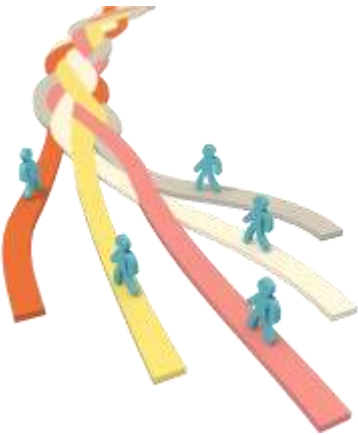
Starting Base Salary Range for Graduate Students and Postdoc Alumni



The BEST Consortium

National Committee Recommendations

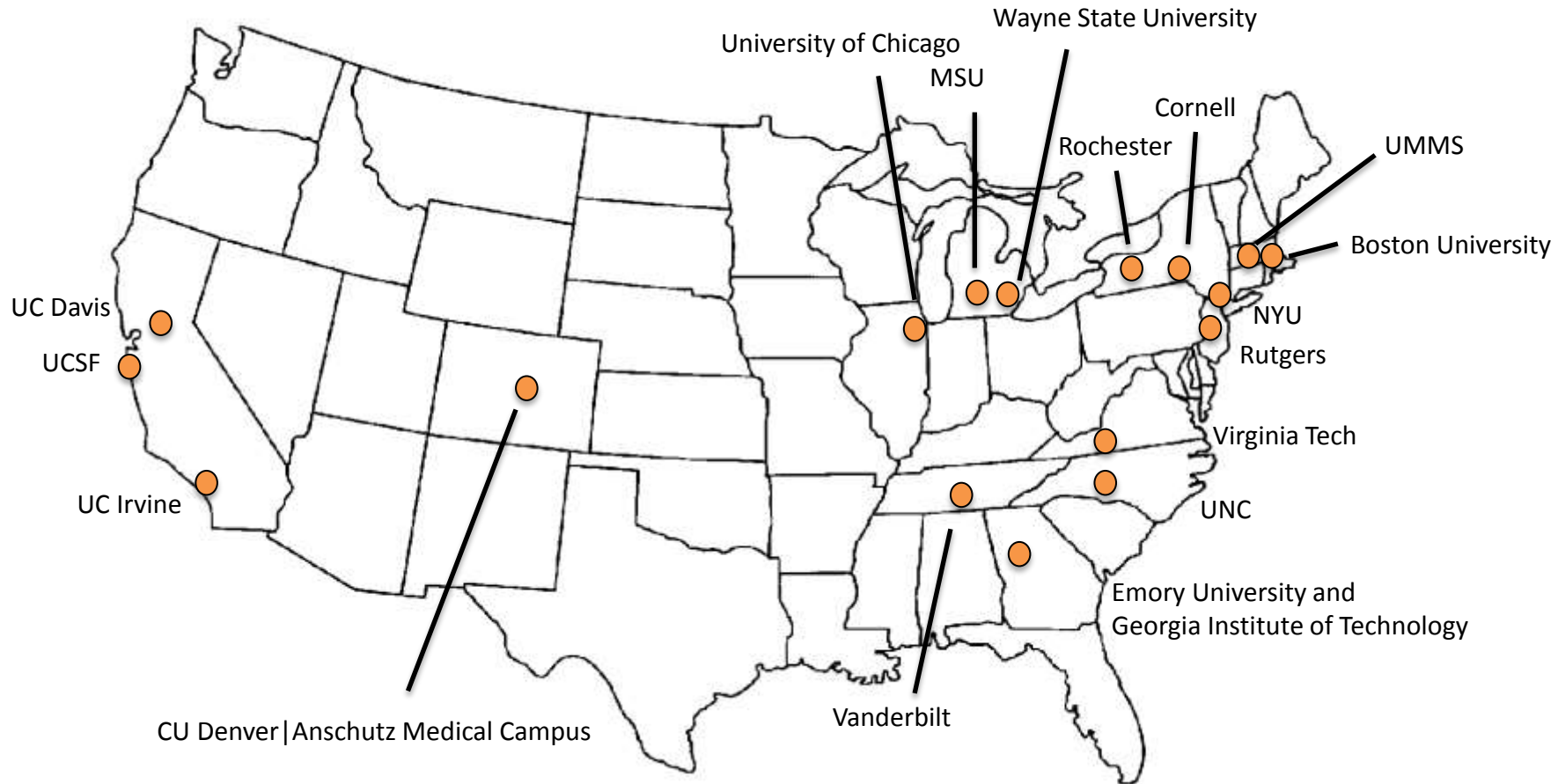
Spurred by several national committees recommending support for graduate and postdoctoral training, the ***National Institutes of Health*** established a committee to review issues of concern in PhD and postdoctoral education and training and one of their recommendations was: **Development of NIH BEST Programs**



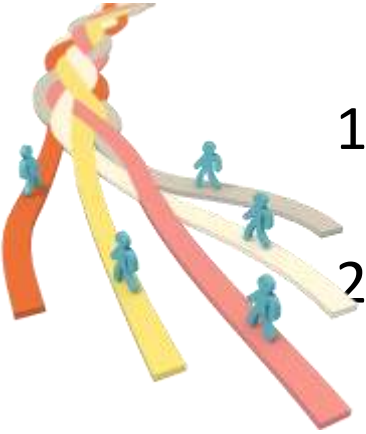
The initial ***goals*** were:

1. Develop sustainable approaches to broaden graduate and postgraduate training.
2. Encourage diverse scientific careers, not just be focused on pursuing an academic faculty career.
3. Provide broad institutional support and faculty engagement, as well as engagement of external partners representing diverse careers.
4. Designed to be a series of experiments aimed at identifying a range of the most effective practices to support the career development of all trainees.

17 U.S. Institutions awarded NIH BEST Grants



Early Stage Innovations and Challenges

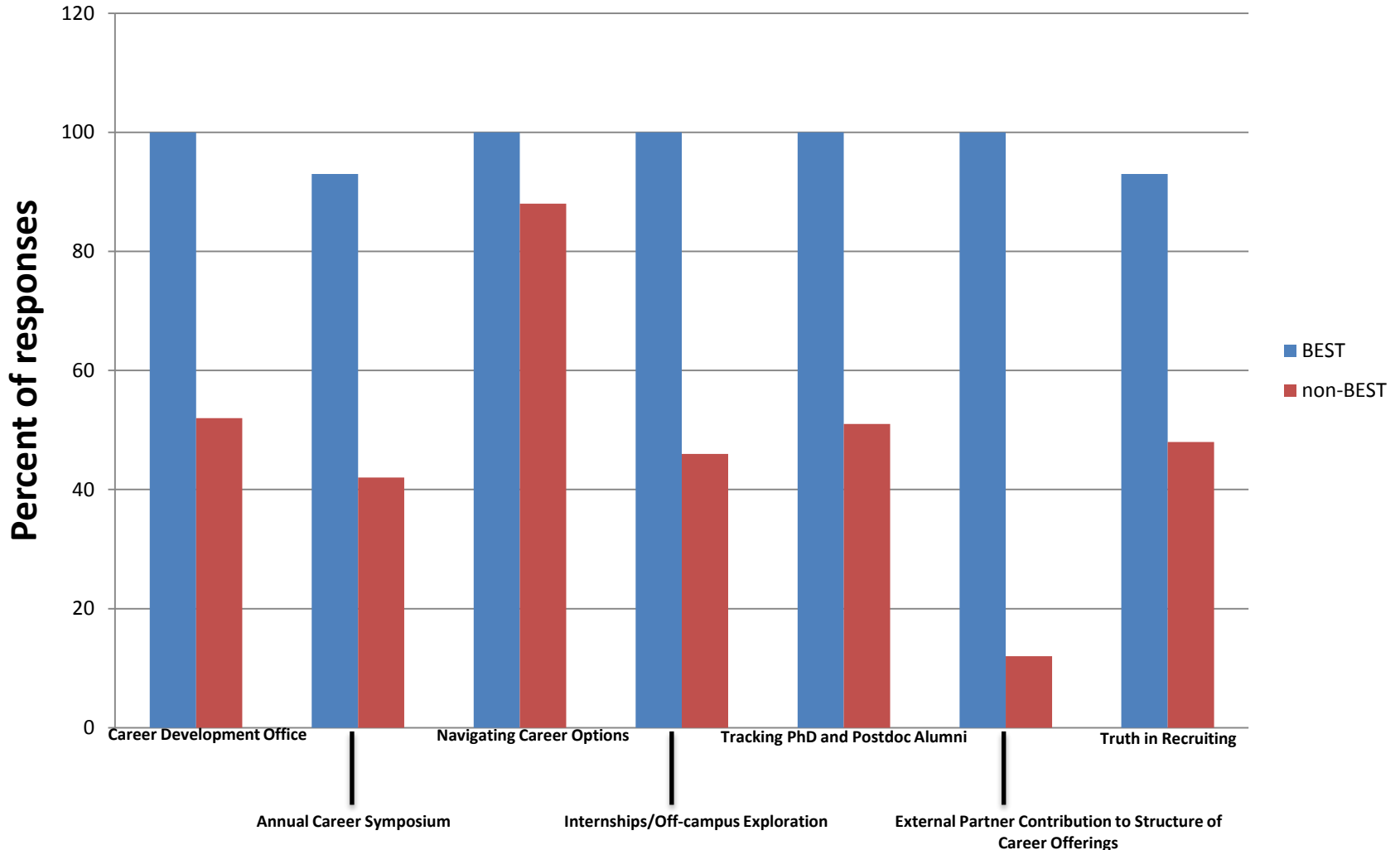


1. Broad recognition among many constituencies of the diversity of career options
2. Widespread acceptance of the fact that a student is not a failure if he/she does not follow mentor's footsteps
3. Abolition of the term 'alternative career'
4. Abolition of the denigratory 'under-employed'
5. Internships as part of Structure for Biomedical Graduate and Postdoctoral Education
6. Extensive partnerships with External Partners Outside Academia
7. Truth in Recruiting

Sustainability of NIH BEST Training Paradigms

The results from a survey of 43 graduate programs indicates how the BEST programs are working just 18 months into the period of support from NIH.

We probed aspects upon which the BEST programs have focused to:

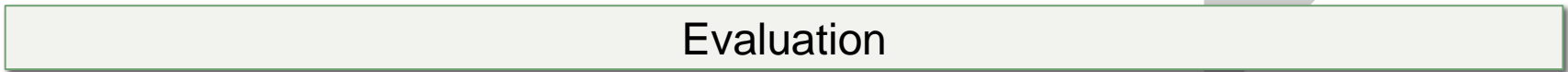
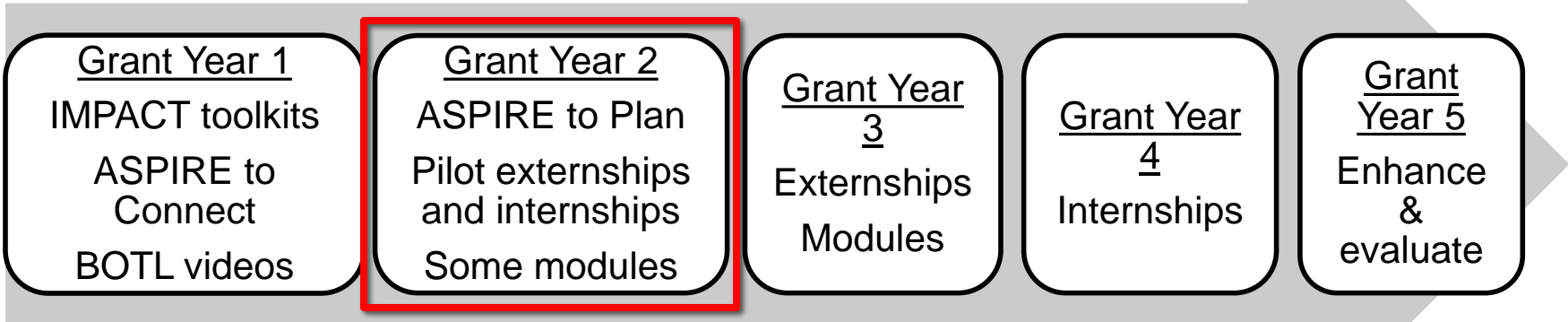
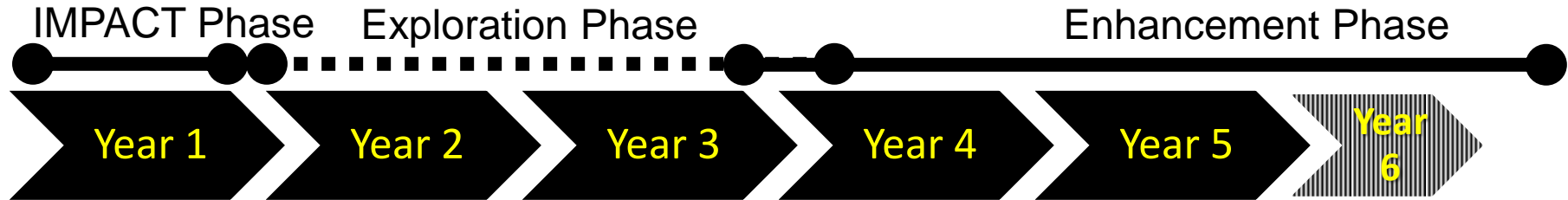


At the end of the NIH BEST Grant Experiment, we hope to have established that:

1. Training at U.S. institutions will value a ***commitment*** to development of higher levels of research skills as well as a full exposure to and education in preparing for a broader and diverse range of careers, which benefit from PhD and postdoctoral training.
2. This will be accomplished by the establishment of high caliber ***Offices of Professional Career Developments*** at all U.S. research institutions focused on graduate and postdoctoral education.
3. Truth in ***Recruiting*** will become widespread, offering forthright information about career outcomes during PhD recruiting activities.
4. PhD and postdoctoral scientists will perform ***research for the intellectual challenge of scientific discovery***, not because of a linear career path to a faculty job.
5. Recognition and support for the fact that not focusing on a faculty career is not viewed as failure as a creative scientist.
6. ***Extensive and informed training paradigms for career advisors and scientists-in-training will be available on the NIH BEST Consortium website.***

A quick look at the Vanderbilt BEST (ASPIRE) Program*

Staging



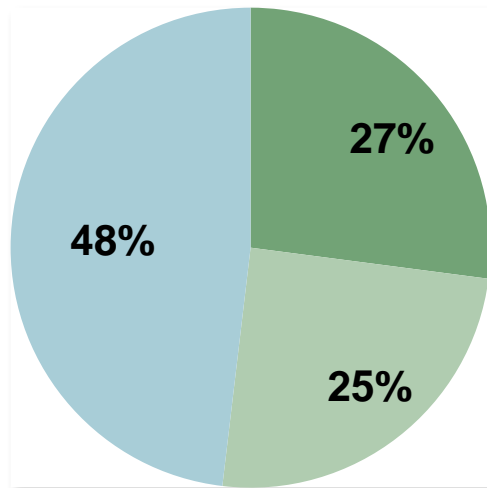
Efforts to Inform and Engage Faculty

- Presentations at Quarterly Basic Science and Education Group meetings
- Presentations at PhD admission program meetings
- Meetings with training grant directors
- Presentations at departmental faculty meetings

Are faculty aware of ASPIRE?

- Surveyed 149 faculty from 12 departments

- Assistant Professor
- Associate Professor
- Professor



- Overall, 57% of faculty aware of ASPIRE
- Faculty in clinical departments are less likely to know about ASPIRE

Department	% Aware of ASPIRE
Basic sciences	85%
Clinical sciences	28%

ASPIRE to Connect (A2C)



Welcome Keynote Address
Ashley Brady

Breakout Session 1

Breakout Session 2

Breakout Session 3

Plenary Speaker
Lauren Celano, Propel Careers

Networking Reception

Participants chose three:

Navigating Professional Conferences

Big Help for Small Talk

Leveraging LinkedIn

Acing the Interview

Media Training for Real Life

Identifying and Exploring Your Network

*partnered with The Graduate
School and International Student
& Scholar Services*

Are trainees aware of ASPIRE?

- March 2015 survey of PhD Students & Postdocs
 - 93% knew about ASPIRE



Who has participated in ASPIRE?

- March 2015 survey of PhD Students & Postdocs
- 159 (59%) attended at least one ASPIRE event
 - 65% PhD students
 - 70% female
 - 95% U.S. citizens or permanent residents
 - 14% Underrepresented minorities

