Wayne State University’s BEST Program

Ambika Mathur, PhD
Dean, The Graduate school

BEST@wayne.edu

http://gradschool.wayne.edu/best

Council of Graduate Schools
NIH’s Broadening Experiences in Scientific Training (BEST) Program

- Recognizes that various career outcomes are successful
- Encourages exposure to multiple career opportunities in areas that trainees are entering
- Transforming culture to make institutions, trainees and faculty accept these career outcomes as the “norm”
NIH’s Broadening Experiences in Scientific Training (BEST) Program

- Supports innovative approaches to broaden graduate training to reflect a range of career options other than tenure track faculty positions.

- Establishes collaborations with non-academic partners to ensure that internships come from a broad spectrum of research and research-related careers.
Goal of WSU’s BEST Program

Transform the institutional training culture such that all science related careers are considered valuable and important to the success of the biomedical research enterprise.
How Do We Transform Institutional Culture

• **Greater emphasis on career planning for trainees**
  • Individual Development Plans (IDPs)
  • Plans of Work and Annual Reviews
  • Office of Graduate Career Services
  • Experiential learning and Career Services
  • Professional Development
  • Faculty Mentor involvement and acceptance

• **Collect better data on trainees, programs and alumni**
  • Use data analytics to improve program outcomes
  • 15-year post-training outcomes
Career Tracks

- Industry/Biotechnology
- Government
- Administration
- Science Policy
- Communication
- Law
Most people with physical science degrees end up working in the private sector.

- Bachelor's degree (397,000)
- Master's degree (135,000)
- Ph.D. (161,000)

Percentage working in sectors:
- For-profit businesses
- Two-year institutions
- State or local government
- Self-employed, unincorporated businesses
- Four-year and precollege institutions
- Federal government
- Nonprofit businesses
Trainee Disciplinary Participation

Since career issues span disciplines, WSU’s BEST program has made programming available to students in all disciplines, including engineering, social sciences and the humanities.

• 116 unique participants:

• Disciplinary breakdown:
  84 biomedical
  18 social sciences
  12 engineering/CS/physics
  2 humanities
WSU Structured Approach to Career Development

- **Phase I**: Exploration (panel discussions) 1-2 hours
- **Phase II**: Didactic Training (interactive workshops) ~ 8 hrs
- **Phase III**: Experiential Learning (internships) 4 – 8 weeks

Proposed Training
Sample Learning Outcomes from Phase II Modules Pre/Post Pairing (N = 24)

- Know about options in workshop’s career area
  - Pre: 5, Post: 22

- Know the skills important for a biomedical career in workshop’s area
  - Pre: 2, Post: 23

- Know of opportunities at WSU to foster a biomedical career in workshop’s area
  - Pre: 2, Post: 19

- Interest in a biomedical career in workshop’s area
  - Pre: 15, Post: 21
2015 Phase III Internship Partners

• WHO
• USDA
• MMS Holdings
• Cayman Chemicals
• Arbor Assays
• Campus Health Center
• Detroit Dept. Health & Wellness
• ASCI
• Lawrence Technological University
Faculty Perceptions: 2013 vs 2015 Results
% who Strongly or Moderately Agree

1) I encourage my best graduate students to pursue careers in academia.
   - 2013: 81%
   - 2015: 79%

2) I try to understand the career goals of my graduate students and seek the training most appropriate to help them accomplish their goals.
   - 2013: 94%
   - 2015: 93%

3) I speak with all of my graduate students about non-academic career options.
   - 2013: 83%
   - 2015: 85%

4) I encourage my students to attend career development activities at conferences/workshops run by the relevant scholarly societies in my field.
   - 2013: 79%
   - 2015: 85%

5) I encourage my students to attend departmental career development activities.
   - 2013: 71%
   - 2015: 75%

6) I encourage my students to attend campus-wide career development activities offered at Wayne State.
   - 2013: 57%
   - 2015: 66%
Faculty Perceptions: 2013 vs 2015 Results
% who Strongly or Moderately Encourage

1) Attend a 1 hr PAD seminar about non-academic career options.
   - 2013 Survey (N=189-191): 183%
   - 2015 Survey (N=289-291): 89%

2) Attend a one-day symposium about non-academic career options.
   - 2013 Survey: 76%
   - 2015 Survey: 82%

3) Take a class in an unrelated department to attain broader knowledge.
   - 2013 Survey: 75%
   - 2015 Survey: 72%

4) Pursue an internship (1 day per week for a month) related to a non-academic career option they wished to explore.
   - 2013 Survey: 59%
   - 2015 Survey: 65%

5) Pursue an internship (1 month full time) related to a non-academic career option they wished to explore.
   - 2013 Survey: 50%
   - 2015 Survey: 62%

6) Attend a week-long mini-course (10 hrs total) about a field peripheral to the major focus of their studies.
   - 2013 Survey: 44%
   - 2015 Survey: 51%
Videos of WSU’s BEST Panels

Business Panel
https://www.youtube.com/watch?v=EFWG-BrB4Y8

Government Panel
https://www.youtube.com/watch?v=ZZc9lbZDhiM

Teaching Panel
https://www.youtube.com/watch?v=tTe2QcaJlyc

Law Panel
https://www.youtube.com/watch?v=TSsYJQZqYO1

Communication Panel
https://www.youtube.com/watch?v=F-J-MhQvDR8

Community Engagement Panel
https://www.youtube.com/watch?v=x2ftTzd6jMU
Thank You!