How One Institution Collaborated Internally to Increase Success with the **NSF** Graduate Research Fellowship (GRFP)

Presenters:

Gisele Muller-Parker, Program Director, NSF GRFP
Michael Thompson, Research Development and
Communications, University of New Hampshire

University of New Hampshire



What is the GRFP? Goals and Key Elements

- To select, recognize, and financially support individuals early in their careers with the demonstrated potential to be high achieving scientists and engineers
- To broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans

Five Year Award to individual students - \$138,000

- Three years of financial support
 - \$34,000 Stipend per year
 - \$12,000 Educational allowance to institution



- 2010 2015: 2,000 Fellowships each year
 - 2015: 16,000 Applications ~12.5% success rate

5/5/2015



Why Universities Should care about GRFP

- High quality graduate students (US citizens, nationals, perm. residents) selected by an independent national competitive process
- Fellows become knowledge experts who contribute significantly to research, teaching and innovations in science and engineering
- Fellowship support gives Fellows greater independence: time and freedom to do their own research (flexible, unrestrictive, portable)

GRFP Successes

- Higher Ph.D. completion rates
- Greater % of women and URM than national population of PhD completers

Since 1952

- 50,000 Fellows
- 42 Nobel Laureates
- 450 Members of the National Academy of Sciences





GRFP Complete Application

NSF FastLane

- Personal, Relevant Background and Future Goals Statement (3 pages)
- Graduate Research Statement (2 pages)
- Transcripts (uploaded electronically)
- Three letters of reference (received by X Nov 2015, 8 pm EST)

DEADLINES: October/November 2015 (received by 8 pm EST)

See GRFP Solicitation for application details and requirements



Promoting GRFP on Campus

- Establish "GRFP champions" at university admin level
- Publicize GRFP on campus: focus on domestic students, undergrads and beginning grad students
- Identify faculty willing to mentor applicants
 - Encourage faculty to register to serve as reviewers for GRFP
- Establish peer mentoring system
 - Formal courses, informal advisement
- Hold workshops
 - Find faculty advisors and Fellows willing to participate
- Utilize GRFP's web resources

NSF

GRFP on Campus

- Promote benefits of GRFP to undersubscribed departments
 - Juniors (REU), seniors, beg. grad students
- Partner/engage with Honors College, REU Site Coordinators
- Reach out to GRFP Resource People on <u>www.nsfgrfp.org</u>
- Engage local/campus GRFP Coordinating Officials (<u>www.fastlane.nsf.gov/grfp/</u>)
- Support courses on science communication, proposal writing, include peer review

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GRFP Resources

- NSF GRFP Website (nsf.gov/grfp)
 - Solicitation and links
- NSF GRFP FastLane Website (fastlane.nsf.gov/grfp)
 - Application, guides, announcements
- GRFP Website (nsfgrfp.org)
- Current & former Fellows
- Phone & e-mail
 - 866-NSF-GRFP (673-4737)
 - info@nsfgrfp.org



History and Development of UNH program

- Partnership between UNH Graduate School, Office of National Fellowships and Research Office
- Before 2013, grad school was hosting info session with little follow up
- Research Office recognized that a single office did not have the capacity to run a comprehensive GRFP preparation program for students
- Bottom Line in 3 years our program had helped create a cohort of 10+ NSF Graduate Research Fellows at UNH



Current Program

- Information Session
- Writing and Application Workshop
- Faculty Reference Letter Session
- Individual Conferences
- Drafting/ Editorial Assistance
- Writing Boot Camp
- Pizza Party
- Celebration of Winners/ Honorable Mentions
- Re-applicant Session
- Broader Impacts Session for Rising Sophomores and Juniors



Information Session

- Hosted by Grad School, Office of National Fellowships, and Research Office
- Typically ~70 students
- All grad students in eligible disciplines invited
- All seniors with 3.7+ GPA invited
- Other seniors with recognized potential invited
- Play GRFP webinar
- Panel of fellows current as well as a successful advisor
- Distribute brochures



Writing the Application

- Writing Workshops:
 - Hosted by Jeanne Sokolowski and myself
 - 2 sessions, about 20 students/ session
 - Talk about crafting a personal essay writing tips
 - In depth explanation of IM/BI
 - Q&A dinner with current fellow
- Individual Conferences with Applicants:
 - Meet one-on-one at least once with each applicant
 - Ask questions about student's background to help them shape personal essay
 - Can be a bit of a therapy session
 - Help students recognize previous BI activities



Writing the Application (cont.)

- Drafting Process:
 - Review multiple drafts of both essays
 - Work with RD Grad Interns
 - Have background in English
 - Help with personal essay
- Writing Boot Camp:
 - Get a group of students together on a Saturday to work together
 - Good, collaborative working time
 - Advisors available to answer questions



Faculty Resources

- Faculty Reference Letter Lunch:
 - Invite all advisors and potential reference letter writers
 - Not all faculty familiar with NSF focus on IM and BI
 - Share letters from winning applications with letter writers
 - Bring in faculty who have served as GRFP reviewers
 - Encourage faculty to serve as GRFP reviewers
- Letter Review:
 - Provide edits on faculty letters
 - Ensure letters align with student applications especially important for advisors



Post Submission

- Pizza Party:
 - After due dates, all applicants and advisors invited
 - Grad School Dean and VPR offer congratulatory remarks
- Celebration of Winners and Honorable Mentions:
 - Ice cream social
 - Press release
- Creating a cohort of UNH NSF Graduate Research Fellows





UNH Today







Graduate Students Win Prestigious Fellowships

Year Marks Best Showing Ever in NSF Fellowship Program

Thursday, May 9, 2013



Headlines

- In the Classr Easy
- Sneakers to
- A Morning Co

Editor's Pick

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CAMPUS LIFE



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Increase in Applicants/ Winners/ Hon Mentions

- 2010 1 awardee (UG) no info on applicants
- 2011 1 awardee (UG) no info on applicants
- 2012 0 awardees no info on applicants
- 2013 20 applicants, 4 awardees (4 Grad), 1 HM
- 2014 34 applicants, 5 awardees (3 Grad, 2 UG 1 now current UNH Grad), 3 HM
- 2015 29 applicants, 3 awardees (2 Grad, 1 UG), 3 HM



Overall goal to make students more competitive in general

- Finding funding for research
- With graduate school applications
- Broader Impacts giving back to society
- Grant writing class for Grad Students
 - The GRFP shouldn't be the only funding mechanism for which graduate students apply



Spring Coaching Sessions

- Broader Impacts Session for Rising Sophomores & Juniors
 - Inform them that the opportunity exists
 - Get students to start thinking about BI early
 - Panel of campus BI contacts attends for presentation / Q&A
- Re-applicant Session:
 - Bring potential re-applicants together
 - Discuss reviews/ strategies for next application
 - Talk about how potential BI activities before next application



Other funding mechanisms for GRFP applicants

- DOE CSGF
- NDSEG (through DoD)
- EPA STAR
- SMART
- Ford Foundation
- Switzer
- Hertz
- Nancy Foster



Discussion and Questions

Contact for more information: michael.thompson@unh.edu

