ADVANCE Program Mission

Funded by a 5-year National Science Foundation grant, the goal of the ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic science, technology, engineering and mathematics (STEM) careers, thereby contributing to the development of a more diverse science and engineering workforce.
Women Faculty in STEM Nationally
PhDs vs. Tenured/Tenure-Track Faculty vs. Full Professors, 1987-2006

Source: NSF, Division of Science Resources Statistics, Survey of Earned Doctorates, 1973-2006
Women Faculty in the Sciences

Women as % of STEM: PhDs vs. Faculty Nationally vs. Brown (2006 & 2007)

- **Biology**
  - 2006 Doctorates in STEM Earned by Women (i): 49.2%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 32.3%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 30.6%

- **Chemistry**
  - 2006 Doctorates in STEM Earned by Women (i): 34.3%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 17%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 14%

- **Computer Science**
  - 2006 Doctorates in STEM Earned by Women (i): 21.3%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 21.2%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 12%

- **Engineering**
  - 2006 Doctorates in STEM Earned by Women (i): 20.2%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 10.8%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 10%

- **Mathematics**
  - 2006 Doctorates in STEM Earned by Women (i): 29.6%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 17.4%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 6.3%

- **Physics**
  - 2006 Doctorates in STEM Earned by Women (i): 16.6%
  - 2006 Tenure-Track Positions Held Nationally by Women (ii): 17%
  - 2007 Tenure-Track Positions Held at Brown by Women (iii): 11.5%

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(i) Source: NSF, Women, Minorities, and Persons w/Disabilities in Science and Engineering, 2009
(iii) Source: Office of the Dean of the Faculty
Women Faculty in the Sciences

Women as % of STEM Tenured/Tenure-Track Faculty at Top 50 Universities vs. Brown University, 2007

- Biology: 24.8% vs. 30.6%
- Chemistry: 13.7% vs. 14%
- Computer Science: 13.5% vs. 12%
- Engineering (iii): 11.1% vs. 10%
- Mathematics: 12.1% vs. 6.3%
- Physics: 9.5% vs. 11.5%

Source: 2007 Nelson Diversity Survey
Source: Office of the Dean of Faculty
Note: Average of electrical, mechanical, civil, & chemical engineering
Women Faculty in the Sciences

Women as % of STEM Full Professors Nationally vs. Brown

2006 Women Full Professors Nationally (i)
2007 Women Full Professors at Brown (ii)

- Biology: 26.2% (N=12)
- Chemistry (iii): 8.3% (N=1)
- Computer Science: 17.4% (N=1), 6.7%
- Engineering: 5% (N=1), 3.6%
- Mathematics: 8.6% (N=2), 6%
- Physics (iii): 8.3% (N=1), 0%

(ii) Source: Office of the Dean of the Faculty
(iii) Note: Tenure-track positions provided for “physical sciences”
Women Faculty in STEM Nationally

Women as % of **Engineering** Doctorate Recipients, 1958-2006

Source: NSF, Division of Science Resources Statistics, Survey of Earned Doctorates, 1958-2006
Working Group Members

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Departments We Serve

Faculty of Arts & Sciences (DOF)
- Applied Mathematics
- Chemistry
- Cognitive & Linguistic Sciences
- Computer Science
- Engineering
- Geological Sciences
- Mathematics
- Physics

Program in Biology (BioMed)
- Ecology & Evolutionary Biology (EEB)
- Molecular Microbiology & Immunology (MMI)
- Molecular Pharmacology, Physiology and Biotechnology (MPPB)
- Molecular Biology, Cell Biology and Biochemistry (MCB)
- Neuroscience
Program Components

- Leadership Program
  - Career Development Award
  - Scientific Leadership Award
  - Travel Grant
- Faculty Development
  - Mentoring Program
  - Sponsored Project Support
  - Work/Family Balance
- Transforming Academic Departments
- Visiting Scholars Program
Career Development Award

- $15,000 seed grant
- Helps faculty increase exposure to senior colleagues
- Tenure faculty in STEM are eligible to apply
- All proposals must describe how projects will influence the careers of women scientist applicants or collaborators
- RFPs released in September for December deadline
Scientific Leadership Award

• Serves to help women faculty take on roles of scientific leadership within their disciplines
• Tenure women faculty in STEM eligible to apply
• Proposals accepted on rolling basis
Travel Grant

- $1,000 available on rolling basis
- Enables women faculty in the sciences & engineering to accept invitations to guest-lecture at universities and conferences
Faculty Mentoring Program
Collaborative Initiative

ADVANCE Program
Dean of the Faculty
Dean of Medicine & Biological Sciences
Faculty Mentoring Program

- One-on-one, cross-departmental matches
- “Opt-out” program for new faculty
- Meet 2 to 4 times per semester
- Over 50% of last year’s mentoring pairs will continue meeting this year

- Institutional and departmental tenure guidelines available through Office of Dean of Faculty and ADVANCE wiki
Sponsored Project Support

- Amy Robb is our resident librarian for help with funding resources
- Check out wiki for links to award programs https://wiki.brown.edu/confluence/display/advance/Sponsored+Project+Support
Sponsored Project Support

Save the Dates for the Following Events

• Private Funding Opps for New Investigators in the Physical Sciences (Brown Bag), Sep 29 & 30

• Strategies for Productive Communications with Federal Funding Agency Program Directors, Donna Dean of Lewis-Burke Associates, Oct 27

• Faculty Outreach & Networking Events (FONE), 2nd Thursday of the Month
ADVANCE helps to promote Brown policies that ensure gender equity in tenure and promotion, implemented by Office of the Dean of the Faculty

- “Opt-out” tenure clock extension for parents of a new child
- Tenure candidates evaluated in terms of tenure-clock (rather than chronological) time
- Dual Career Partner Placement Protocol: http://www.brown.edu/Administration/ffpf/dualcareer
Work/Family Balance

ADVANCE Wiki Resources

• Dual Career
• Local Employment Resources
• Dependent Care

Link to these from our website!
Department Chair Support

Save the Dates for These Chair Workshops
(Noon @ Faculty Club)

- Recognizing Gender Bias in Letters of Recommendation, Oct 9
- The Department Chair’s Role in Institutional Change: Lessons from MIT, Dr. Nancy Hopkins, Oct 22
- Faculty & Families: Negotiating Dual Career Hires & Caretaking Leaves, Nov 6
Department Chair Support

Documents Provided Today

• Increasing the Retention & Advancement of Women & Minority Scientists: A Guide for Department Chairs
  https://wiki.brown.edu/confluence/display/advance/Resources+for+Department+Chairs

• Faculty Perceptions of Institutional Climate & Advancement Opportunities: Pre-Test Survey Results
  http://www.brown.edu/Administration/Provost/Advance/evaluation.html

• Fall 2009 Events Calendar
Department Chair Support

ADVANCE Wiki

- Provides presentations from our visiting scholars regarding issues of recruitment & retention
  
  https://wiki.brown.edu/confluence/display/advance/Resources+for+Department+Chairs
Visiting Scholars Program

Dr. Nancy Hopkins, MIT Professor of Biology


• Wed, Oct 21 @ 4:30 PM
  Sidney Frank Hall
  185 Meeting Street
  (Reception to follow)
For More Information

- Email: Advance_Program@brown.edu
- Website: http://brown.edu/Administration/Provost/Advance
- Wiki: https://wiki.brown.edu/confluence/display/advance/ADVANCE+at+Brown