

Outreach and Mentoring or don't figure it out alone

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Agenda

Yolanda George, AAAS

A Research & Action Agenda on STEM Workforce Mentoring

Norm Fortenberry, NAE

Assessing Participation and Advancement in Engineering and Science of Individuals and Institutions Underrepresented as Federal Grantees

Richard Ladner, University of Washington

Outreach for Academics, along with several program examples



Objectives

- Provide an overview of mentoring resources, as well as results from several recently released studies
- Supply several concrete examples of mentoring programs
- Offer a list of resources



What the Research Says

prepared by Caroline Simard, ABI

Students

 Mentoring is a key determinant of retention of women and other minorities in computer science and engineering

<u>Undergraduates</u>

 At the undergraduate level, the mentoring relationship should primarily focus on exposing the student to the various career possibilities that come with computer science and engineering and giving them support in making early career decisions



Graduates

- At the graduate level, the focus of mentoring is on finishing a degree on track, and helping the student secure a wanted position
- Research shows that students who are mentored publish at a higher frequency than those who are not
- Adequately mentoring graduate students is also beneficial to tenure-track faculty
- Faculty who mentor graduate students who are from a different gender or ethnic identity need to educate themselves in terms of cultural and racial perspectives to be more effective mentors;



Junior Faculty

- At the junior faculty level, mentoring focuses on navigating the tenure track and beyond.
- The mentor helps the new faculty understand departmental structures and processes and articulates the requirements and expectations for progress toward tenure,
- The mentor also has a crucial role in protecting the new faculty's research time in order to make tenure,
- At the junior faculty level, another key mentoring need is encouragement and advice on balancing work and family responsibilities



Senior Faculty

 Even tenured faculty need mentoring from trusted colleagues on the road to greater recognition and full professorship. The need for mentoring at this career stage is help with award nominations, opportunities for serving on prestigious committees, and recognition such as being named a member of the NAE.



Resources

- Cuny, J. and W. Aspray, Recruitment and Retention of Women Graduate Students in Computer Science and Engineering. 2000, CRA-W. http://www.cra.org/reports/r&rwomen.pdf
- Computing Research Association Committee on the Status of Women in Computing Research: Career Mentoring Workshops
- http://www.cra.org/Activities/craw/projects/mentoring/mentorWrkshp/transcripts.pdf
- Castaneda, Sheila. The Promotion and Tenure Process: Managing the Academic Career for Faculty Women at Undergraduate Computer Science and Engineering Institutions. Slides from CRA-W Workshop, March 7, 2000. Online at:
 - http://cra.org/Activities/craw/projects/mentoring/mentorWrkshp/slides/sigcse2007/Promotion_and_tenure.ppt#256
- Anne Condon. From Associate To Full. CRA-W Workshops
- http://www.cra.org/Activities/craw/projects/mentoring/mentorWrkshp/slides/fcrc 2003/cmw2003.pdf



Resources

- Moyra McDill, Anne Condon, Mary Williams. 2000. Time Management http://www.cs.ubc.ca/~condon/ccwest/CCWESTtimeMgm1.htm
- Faith Fich, Elizabeth Cannon, and Serpil Kocabiyik. 2000. Getting a Job (Canada):
 - http://www.cs.ubc.ca/~condon/ccwest/CCWESTjob1.htm
- Monique Frize and Maria Klawe. 2000. Getting Tenure. http://www.cs.ubc.ca/~condon/ccwest/CCWESTtenure1.html
- Katherine Schultz, Lynette D. Madsen, and Claire Deschenes.
 Developing a Research Program (Canada).
 http://www.cs.ubc.ca/~condon/ccwest/CCWESTresearch1.html
- Committee on Science, Engineering, and Public Policy's (COSEPUP) http://www7.nationalacademies.org/cosepup/.



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Soon to come....

Mentoring in a Box for **Academics**

Mentoring-in-a-Box: Technical Women at Work



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Computer Science







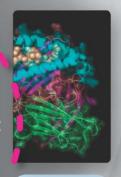
Human Computer Interaction Robotics, Vision & Graphics

Language Technologies



Algorithms,

Complexity, Systems,
Programming Languages,
Networking, Architecture, AI
& Machine Learning, Data-



Software Engineering bases, Privacy & Security,

NanoComputing...

Computational-Biology & Medicine







Brain & Cognitive Sciences

Entertainment Technology

Business & Public Policy

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What/Outreach/

A well developed Women's network that came from the work of Margolis and Fisher

Unlocking the Clubhouse