Developing Diverse Departments (3-D) at NC State

NSF ADVANCE @ NC STATE

Developing Diverse Departments (3-D) at NC State
NSF ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers

• The goal of the ADVANCE program is to develop systemic approaches to increase the representation and advancement of women in academic (STEM) careers, thereby contributing to the development of a more diverse science and engineering workforce
Why do we need diversity in academia?
Doctorate recipients from US universities for 2008 (NSF Data Tables)

- 26,271 males (53.8%)
- 22,496 females (46.1%)
- 35 unknown (0.1%)

CS Doctoral Degrees

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Granted to Women</td>
<td>136</td>
<td>171</td>
<td>168</td>
<td>201</td>
<td>214</td>
<td>307</td>
<td>328</td>
</tr>
<tr>
<td>Total</td>
<td>768</td>
<td>750</td>
<td>816</td>
<td>910</td>
<td>1,121</td>
<td>1,416</td>
<td>1,597</td>
</tr>
<tr>
<td></td>
<td>17.7%</td>
<td>22.8%</td>
<td>20.6%</td>
<td>22%</td>
<td>19.1%</td>
<td>21.7%</td>
<td>20.5%</td>
</tr>
</tbody>
</table>

Doctorate holders employed in universities and 4-year colleges (2006)

<table>
<thead>
<tr>
<th></th>
<th>Full Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>Other and N/A</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>6.3%</td>
<td>7.2%</td>
<td>9.3%</td>
<td>9.7%</td>
<td>32.6%</td>
</tr>
<tr>
<td>Male</td>
<td>27%</td>
<td>14%</td>
<td>12.4%</td>
<td>14.1%</td>
<td>67.4%</td>
</tr>
<tr>
<td>All</td>
<td>33.3%</td>
<td>21.2%</td>
<td>21.7%</td>
<td>23.8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

# CS and IS: Doctorate holders employed in universities and 4-year colleges (2006)

<table>
<thead>
<tr>
<th></th>
<th>Full Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>Other</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>*</td>
<td>300</td>
</tr>
<tr>
<td>Male</td>
<td>2500</td>
<td>1900</td>
<td>1900</td>
<td>*</td>
<td>1300</td>
</tr>
<tr>
<td>Total</td>
<td>2800</td>
<td>2300</td>
<td>2400</td>
<td>*</td>
<td>1600</td>
</tr>
<tr>
<td>Female (%)</td>
<td>10.7%</td>
<td>17.4%</td>
<td>20.8%</td>
<td></td>
<td>23.1%</td>
</tr>
</tbody>
</table>
Have you ever experienced unfair treatment?

...due to your gender or race?
Research has shown that women in academia

• Experience lower salaries
• Receive less funding from their home institution
• Receive less lab space
• Are physically isolated (office location)
• Are given the “benefit of the doubt” less often than male faculty
• Are often motivated to leave science, math and engineering majors as students, due to “a chilly climate”
  – Women pick up signals, both blatant and subtle, that they are outsiders and do not fit into the male, majority culture of their declared field of study
• Are most often driven away because of psychological isolation – not the inability to do the intellectual work
Women in academia

• Are treated as both super-visible and invisible, depending on the circumstances
• Are expected to fit into the existing culture and assimilate as other new faculty members before them have done
• (and other minorities) are often viewed as “outsiders” leading to extra psychological stresses and the general feeling of not belonging
• Usually receive little or no mentoring
• Usually receive little or no inside information
• Usually receive little or no introductions to valuable connections and networks
And still…

- Well-known studies have shown that an article with a woman’s name as author will invariably receive lower reviews than the same article with a man’s name.

- Women are assumed to be assistant professors or lecturers, while men are assumed to be associate or full professors.

- Men are expected to be innately more aggressive and independent. Women are thought to be more emotional, expressive, and nurturing. How can this have a negative impact?
Schools with NSF ADVANCE Funding

• 140 Colleges and Universities have somehow been associated with ADVANCE funding
Shifting the focus of conversation away from equal opportunity hires and toward the effects of unrecognized societal attitudes and social biases in evaluation within our university community
NC State ADVANCE

- A three-year two-armed project
- Developing change agents among faculty and academic leaders
- Each arm is built around a core group of faculty who will make a commitment to meet as a group for three years to develop a depth of knowledge and commitment that positions them to serve as effective change agents within the university culture
That is what NC State and other universities are doing…

Now what can you do?
As a new junior faculty member?

- Become Informed
  - Faculty handbook
  - The unwritten rules
  - Observe
- Keep careful records of your activities
- Is there anything you should avoid?
- Be familiar with your job description
- Let your career advisors, chair, and colleagues know when you have done good work
Seek advice and mentoring from a variety of places

• Seek advice and mentoring from a variety of places
  – Your own institution
  – Your research area, but at another institution

• Identify allies
Work / Life Balance: Formal policy or informal practice?

- Flexible leave without pay
- Modified duties
- Stopping the tenure clock
- Maternity leave
- On-campus daycare
- Dual career hiring
For additional information

- Faculty Diversity: Problems and Solutions, by JoAnn Moody (2004)
- Tutorials for Change: Gender Schemas and Science Careers, Virginia Valian

http://www.hunter.cuny.edu/gendertutorial/index.htm