Results of the Workshop on Gender Equity in Materials Science and Engineering and Follow up Actions

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Workshop run May 2008

- Workshop organized at the request of the University Materials Council
- Funding by the NSF DMR & Engineering and DoE BES
- May 18-20 at the Conference Center at the University of Maryland
- 98 participants
- 62 attendees from 45 universities
- 11 attendees from 9 national laboratories
Observations

- Skit by the University of Utah ADVANCE team highlighted personality issues.

- Implicit biases are pervasive and common among both genders. [https://implicit.harvard.edu/implicit/](https://implicit.harvard.edu/implicit/)

- Try it yourself:

- Expectations and standards for the genders are based on our “schemas” by which we understand our world.

- Job situations for women are different from men. 90% of faculty women have working spouses while 50% of men do.
Observations

• 78% of women academics rate “balancing work and family life” as their greatest challenge.

• In one study 62% of women in STEM were married to a scientist or engineer making “two-body” problems of great concern.

• This limits the ability to move and that can restrict salary increases that such moves can induce.

• Women with children are not less productive or successful.
Pipeline

- Women have been graduating in MSE at increasing rates.
- We still lose qualified women from all ranks much faster than men.
- Especially between the Ph.D. and the junior faculty rank.
- Further attrition with rank within the faculty.
- There are problems with the job and with the climate.
Discussions

• Enhance acceptance of women by how their case is presented both when considered for hiring and at promotions.

• Improve mentoring.

• Administration should champion women faculty and put them on strong committees with leadership component.

• Develop an improved community feeling within the departments.

• Develop standards for “family friendly” environments and reward such schools.
Aside...

- This morning Chris Grovenor cited the difference in women in MSE in Germany and France. Similar observations can be made about participation of women in STEM elsewhere.

- This emphasizes the fact that diversity is a “nurture” culture and society issue, not a “nature” issue.
Recommendations

- There should be a **follow up process** to determine what additional changes need to be made to accelerate progress in gender equity.
- Departments should **strengthen documentation and enforcement** of procedures.
- Departments should **strengthen mentoring** of junior faculty.
- Departments should **raise awareness** of gender bias and work to eliminate hostile attitudes.
- A new type of **training session should be developed** that would be more effective in conveying the facts and consequences of gender bias.
- The UMC should establish a **certification of “family-friendly” or “gender equivalent” institutions.**
- **Novel approaches** to adjusting job responsibilities of faculty, staff, and students to permit them to deal with family/life issues are needed that do not carry stigmas.
- Faculty and national laboratory staff need to **promote the benefits of their careers to women.**
Recommendations of the Gender Equity Workshop

• There should be a follow up process to determine what additional changes need to be made to accelerate progress in gender equity.
  ▫ **Doing this here.**
• Departments should strengthen documentation and enforcement of procedures.
  ▫ **One report of specific documentation in place.**
• Departments should strengthen mentoring of junior faculty.
  ▫ **Two reports of strengthened efforts at mentoring junior faculty.**
• Departments should raise awareness of gender bias and work to eliminate hostile attitudes.
  ▫ **Nine departments reported increased awareness and specific efforts to reduce inequities.**
Recommendations of the Gender Equity Workshop

- A new type of training session should be developed that would be more effective in conveying the facts and consequences of gender bias.
  - No change made in this area.
- The UMC should establish a certification of “family-friendly” or “gender equivalent” institutions.
  - Appointment of a committee to study this is in progress.
- Novel approaches to adjusting job responsibilities of faculty, staff, and students to permit them to deal with family/life issues are needed that do not carry stigmas.
  - No change in this area.
- Faculty and national laboratory staff need to promote the benefits of their careers to women.
  - At least two departments report a change in this area.
Survey of Heads

- Some progress among students at several schools.
- Some progress among Assistant Professors but hiring freezes prevented action at most.
- Only one promotion of an Assistant Prof. reported. No promotions to Full reported.
What Difference did the Workshop Make?

- Six heads reported that it increased their awareness of the issue.
- Nine reported no change but all indicated that diversity was an existing policy of their department including in hiring decisions.
- Nine reported specific changes made.
What Difference did the Workshop Make?

Samples of changes made:

- Establishment of an ADVANCE program on campus.
- Increased consideration of “non-professional” responsibilities and mentoring with these.
- Best practices in recruiting women and other policy documents in place.
- Sabbaticals, maternity leave, and stopped tenure clocks for women faculty.
- Increased diversity on search committee.
- Faculty meetings scheduled during normal business hours.
- Increased mentoring of female faculty.
- An internal workshop on gender and race sensitivity and behavior in the classroom at one institution.
What Difference did the Workshop Make?

• Samples of changes made:
  ▫ Proactive increased involvement of junior faculty in department decisions (where there are more women)
  ▫ On campus lecture by Brian Nosek on implicit biases.
  ▫ Gender bias as an agenda item at faculty meeting & retreat
  ▫ Family friendly guidelines considered.
  ▫ Open house targeted at attracting undergraduate women.
  ▫ Consideration given in compensation decisions at one institution.
  ▫ Scholarship established for women undergraduates.
  ▫ REU program focusing on women participants.
  ▫ Family leave policy discussed for graduate students.
  ▫ Leadership training program for women undergraduates.
  ▫ Added women to an external advisory board.
What should the UMC do next?

- General sense that the issue should remain on the table to keep it visible and that periodic reports should be solicited.
- More effort should be made to promote diversity among higher up administrators.
- More effort should be made to promote academic careers among women rising through our programs.
- Focus on best practice discussions.
- Reward success among ourselves.