

STATUS OF WOMEN IN SCIENCE AT UCSD

In the United States, it is well known that women are underrepresented in the field of science. This disparity begins very early in life, and increases throughout the academic/career pathway, although the greatest drop appears to occur between postdoctoral students and faculty. Statistics from UCSD confirm these trends (see appendix.) In the fields of engineering and physics, less than 25% of students, postdocs and faculty are women. While a greater percentage of women start in other fields of science, the proportion of women declines at each advancing step; from undergraduate to graduate, to postdoc, to faculty. Among science faculty, the proportion of women is highest among non-tenure track faculty (<30%), followed by assistant professors in tenure track positions (14-26%), and lowest among tenured associate and full professors (4-10%). Between 1981 and 1991 the proportion of women among tenured science faculty increased, but their representation among assistant professors in both tenure and non-tenure track positions has not changed dramatically.

The Subcommittee on Women in Science has been considering ways to encourage women to enter and stay in the fields of science at UCSD. We have focused on four groups of women; undergraduates, graduates, postdocs/researcher staff and faculty. While we have come up with several specific recommendations for each group, that follow this section, several common needs became apparent.

General Needs Assessment:

A formal needs assessment would be the best way to approach long-range solutions, however some action needs to begin immediately. Our recommendations come from the subcommittee's investigations and meetings with women faculty, postdocs and students.

Orientation:

All of the groups of women felt that when they first came to UCSD, it would have been very useful to have had an orientation that included resources for women on campus and in the community, such as Graduate Women in Science (GWIS), Association of Women in Science (AWIS), Society for Women Engineers (SWE), and American Medical Women's Association (AMWA). This would also provide a way to meet female peers and possible mentors. All groups of women felt there should be a centralized location where this information was available, both at orientation and subsequently as they proceed up their career paths and questions arise. This highlights the continuing need for a staffed Women's Resource Center on campus that serves all groups of women.

Role Models and Mentoring:

Every group felt that a serious problem to advancement was the lack of available role models at the highest steps of the career path. They also raised concern about the unfair burden being placed on those few successful women to provide mentoring for younger women, while pursuing their own careers. There is a perceived need to involve more men in the mentoring process who are sensitive to the current position of women in science.

Eliminating sexual harassment and hostile environments:

Overt sexual harassment and an insidious hostile environment continue to be issues for women in science.

Sexual harassment needs to be dealt with promptly, and in as much as possible, publicly. A visible response is needed to encourage reporting by affected individuals, and compliance with guidelines by those in positions of power.

A hostile environment, sometimes referred to as gender harassment, differs from sexual harassment. Women are often treated differently than men, in ways that create an environment of hostility or non acceptance. For example, women may rarely be invited as speakers at colloquia, women students may not be sent to conferences or receive TA or RA positions as often as men. Such an environment inhibits women's academic progress. These gender differences need to be addressed, as well as issues of sexual harassment.

SPECIFIC ISSUES

Faculty

The number of female professors in the natural sciences remains small. Therefore this group must deal with many of the same problems faced by other minority groups (isolation, lack of peers, being overburdened as mentors and committee members), as well as gender-specific issues. Women faculty are more likely than men to receive non-tenure track appointments, which have less job security. In 1991, only 10% of the tenure-track faculty at UCSD were women, compared to 29% of nontenure track faculty. Women are also more likely to have part-time appointments. Both common and specialized concerns of tenure-track and non-tenure track female professors follow.

Common Issues:

1. The initial appointment is usually at entry level (step 1) with corresponding salary. This happens more frequently for women than men. Similarly, salary negotiations are less common for women. This option is rarely discussed upon hiring. When level of appointment is questioned, inappropriate discussions follow about spouse's employment.
2. Teaching and committee responsibilities are often greater for women. This may reflect recognition of women's "excellent" organizational skills, the "token woman" syndrome on key committees, or less protection for female junior professors from being overburdened with committee work.
3. Women have less recognition for their research accomplishments through nominations for awards, invitations to speak at major meetings, appointments to editorial positions.
4. Women are not taken seriously in this male-dominated field. An assertive or aggressive women is given a derogatory label. A woman who stands behind her opinions is often viewed as "overly emotional".
5. There is considerable bias against the woman who has a family (particularly if she has more than one child), and the dogma is that "she has clearly chosen family over career".

1. Postdocs are not recognized as a group on campus. There is no centralized list of all postdocs to use in efforts to educate, network or provide support for women postdocs.
2. There is currently no University effort to track postdocs, which would allow a determination of whether women are being as successful as men in establishing a research career.
3. There is a general belief that women are less likely to receive authorship for their postdoctoral work, either as first author or otherwise, and less likely to obtain faculty status after their postdoctoral position.
4. There are many common issues for postdocs that need to be addressed, including the importance of establishing a publication record, attending meetings, networking, job searching and negotiating, types of academic positions available, and how to run your own lab or research project.

Graduate Students

Graduate study is a period in which the bulk of one's training is received, initial contacts are formed, and most importantly, it is the first time a student begins to perceive herself as a professional in a chosen field. There are a variety of ways in which we can ensure that women at this university complete their graduate education in higher numbers and with the academic success necessary to be competitive in their chosen fields.

1. Many programs already exist on this campus which could be useful to graduate women, such as OGSR's annual graduate women's meeting, psychological services graduate women's support group, and departmental activities. However, they suffer from inadequate publicity and implementation, and are not as well utilized as they might be. Distribution of this kind of material would reflect a supportive atmosphere by the administration.
2. Although mentoring has been discussed as a common issue, there are aspects of mentoring which need to be addressed at the level of the graduate student. Women graduate students are both role models for the undergraduates with whom they do research and teach, and are simultaneously facing a chronic deficit of role models for themselves. There may be as much time as two years before the student-advisor relationship is fully established. This necessitates additional forms of mentoring early in the graduate experience.
3. Once established, however, the advisor-student relationship may still be fraught with ambiguities for the female student. Some of the issues which may provide difficulty are the distinction between aggressive and assertive behavior, manner and format for presentation of work, professional dress and conduct, and socializing in a professional context.

RECOMMENDATIONS

All groups

1. Conduct an orientation for each group that includes resources for women on campus and in the community, and a way to meet female peers and possible mentors.
2. Provide an ongoing source of information about resources for women on campus and in the community, and a way to meet female peers and possible mentors, i.e. through a staffed Women's Resource Center.
3. Increase the number of female role models through invited speakers and recruitment (faculty, staff and graduate students).
4. Involve more men in the mentoring process who are sensitive to the current position of women in science.
5. Deal with sexual harassment promptly and publicly (report number of incidents and University response).
6. Educate faculty, staff and students about the seriousness of both sexual harassment and hostile environment.

Faculty

1. Women being recruited to the faculty (as well as after they have been appointed) should be fully informed of: the types of appointments; criteria for the initial appointment at a specific step; length of time until review for promotion; how reviews are conducted; expected percent effort versus appointed percent effort; criteria for accelerated promotions and off-scale salary.
2. Faculty with young children (who initially chose not to stop the clock after the birth of a child) should be given the option to stop the clock retroactively prior to a major review.
3. Women, especially junior faculty, should be counseled to avoid appointment to too many committees.
4. Pay non-tenure track faculty for teaching efforts.
5. Judge non-tenure track faculty on funded percent effort.
6. Allow non-tenure track faculty to omit the title "adjunct" and "in-residence" in outside correspondence.

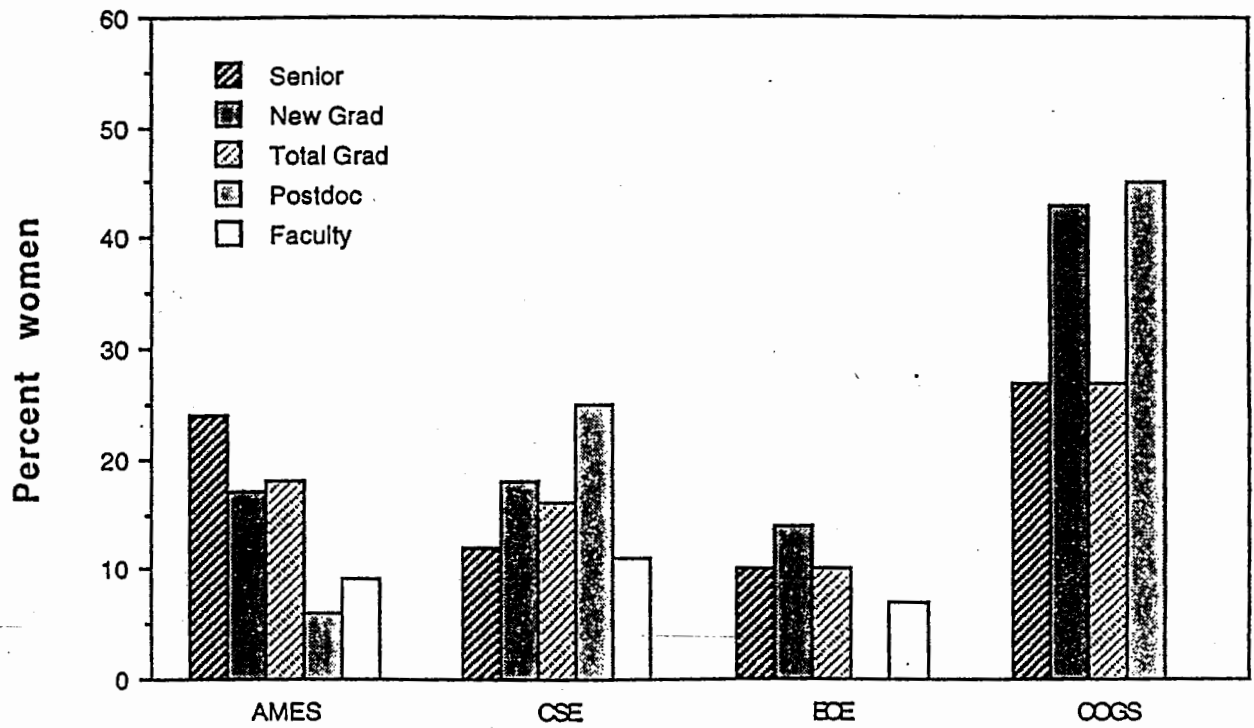
Postdoctoral Fellows

1. Establish an administrative umbrella for postdocs, possibly funded through overhead funds from grants, since this is the primary source of funding for most postdocs. This position would keep a file on all postdocs on campus with current CVs. These records would provide access to all postdocs for networking and support efforts, and a basis for future "tracking" of publication records and success in obtaining a faculty positions.
2. Establish a networking and support system for postdocs, which would include an annual reception and monthly meetings.
3. Establish a buddy system, that would link postdocs with other postdocs and graduate students.

Graduate Students

1. Pair women graduate students with female faculty, sensitive male faculty, and/or advanced students early during the admissions process.
2. Educate all faculty who mentor graduate students about gender specific issues, such as aggressive versus assertive behavior, professional dress and conduct, and socializing in a professional context.

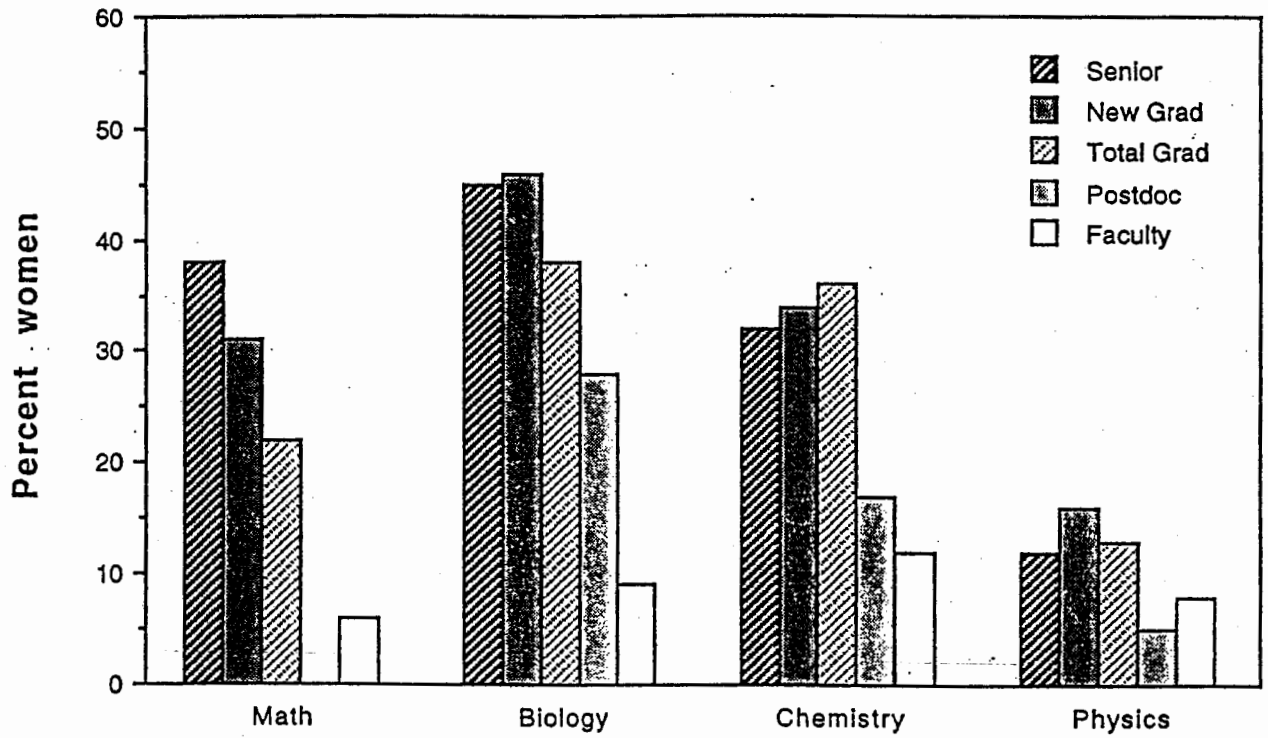
Percent Women in Science at UCSD, 1991-92



AMES=Applied Mechanics/Engineering Sciences
CSE=Computer Science & Engineering

ECE=Electrical & Computer Engineering
COGS=Cognitive Sciences

Percent Women in Science at UCSD, 1991-92



Percent Women in Science at UCSD, 1991

	Engineering		Science		Medicine	
	%	(n/N)	%	(n/N)	%	(n/N)
Tenure track						
Assoc + Full	4.4	(3/68)	8.1	(13/161)	9.7	(15/155)
Assistant	18.8	(6/32)	13.8	(4/29)	26.3	(5/19)
In Residence	--	(0/2)	--	(1/1)	23.7	(22/93)
Adjunct	--	(0/0)	--	(0/0)	33.1	(41/124)
Clinical	--	(0/1)	--	(1/1)	28.6	(22/77)
Researcher	16.7	(3/18)	19.6	(10/51)	38.6	(27/70)
Specialist	--	(0/1)	38.5	(5/13)	45.0	(9/20)
Postgrad Res.	7.7	(2/26)	16.8	(22/131)	30.0	(30/100)

Engineering = AMES, CSE, ECE

Sciences = Biology, Chemistry, Mathematics, Physics

	Maternal & Child Health (MCH)		All other	
	%	(n/N)	%	(n/N)
Tenure track				
Assoc & Full	25.0	(7/28)	6.3	(8/127)
Assistant	42.9	(3/7)	16.7	(2/12)
In Residence	28.6	(4/14)	22.8	(18/79)
Adjunct	51.3	(19/37)	25.3	(22/87)
Clinical	50.0	(7/14)	23.8	(15/63)
Researcher	57.1	(4/7)	36.5	(23/63)
Specialist	66.7	(4/6)	35.7	(5/14)
Postgrad Researcher	75.0	(6/8)	26.1	(24/92)

MCH = Community/Family Medicine, Pediatrics, Reproductive Medicine

[not calculated for five or less]

The Colloquium Series for Women Postdocs and Graduate Students
presents:

Dr. Sally Ride

Former Astronaut and
Director, California Space Institute

UCSD

"The United States Space Program"

FOLLOWED BY A PANEL DISCUSSION ON CAREERS IN THE SCIENCES:
THE RULES OF THE GAME AND HOW TO PLAY IT!

TUESDAY

APRIL 19, 1994

4-6pm

The UCSD Faculty Club

Reception at 4pm

The program begins at 4:30

ALL FACULTY, POSTDOCS AND GRADUATE STUDENTS IN THE SCIENCES ARE INVITED!

Organized by Chancellor's Advisory Committee on the Status of Women

Sponsored by Dr. M. Caserio, Vice Chancellor, Academic Affairs

