

# **Annual Report on the Committee on the Status of Women in Astronomy for 2010-2011**

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The 2010-2011 year was an active one for the Committee on the Status of Women in Astronomy (CSWA). Committee members Joannah Hinz (Univ. of Arizona) and Wal Sargent (Caltech) rotated off. Their efforts on behalf of CSWA are much appreciated. Caroline Simpson (Florida International Univ.) completed her first term and requested a second. The AAS Council increased the committee membership from 10 to 11. The current members are: Joan Schmelz (Chair, Univ. of Memphis), Hannah Jang-Condell (Univ. of Maryland), Caroline Simpson (Florida International Univ.), Michele Montgomery (Univ. Central Florida), Ann Hornschemeier (NASA GSFC), George Jacoby (NOAO), Donald Kniffen (USRA), Marc Postman (STScI), Laura Trouille (Northwestern), Nancy Morrison (Univ. of Toledo), and Ed Bertschinger (MIT).

## **Efforts at the 216<sup>th</sup> AAS Meeting in Miami, FL**

At the CSWA town hall, Joan Schmelz gave an introduction to the topic, "Designing a 21st Century Astronomy Career Track." In it, she argued that issues concerning "female-friendly" and "family-friendly" workplaces will have to be addressed in order for successful career tracks to be the norm. It is true that the situation for women in astronomy has significantly improved over the last few decades. Women are much better represented in astronomy departments, on observatory staffs, and in management positions at government and not-for-profit facilities, but women are not as well represented at the upper levels of the structure in all of these types of institutions. If there is disparity in the percentage of women in higher level positions, (and possibly to a degree at all levels), this might imply that adequate safeguards and programs are not in place to address aspects of the workforce pipeline that preferentially affect women. These include, but are not limited to, maternity leave, workforce reentry, and childcare. Schmelz also presented some current information on the proportion of women at various professional ranks. The PowerPoint can be found here:

<http://www.aas.org/cswa/MAY10/townhall.html>

CSWA hosted a Special Session on Unconscious Bias. CSWA Chair, Joan Schmelz, gave an introduction. Caroline Simpson showed trends from negative impacts on women's salaries, promotions, prestige, and advancement to leadership positions. Patricia Knezek and Michele Montgomery suggested actions by senior and junior faculty, respectively, to minimize unconscious bias during a faculty search. Knezek also gave recommendations on how to address unconscious bias in the workplace. The process of eliminating unconscious bias begins with awareness, then moves to policy and practice, and ends with accountability. Many discussions have subsequently been posted in the AASWOMEN newsletter and discussed on the Women in Astronomy blog, bringing much needed attention and continuous communal involvement to this very important subject. The powerpoint presentations for these talks can be found here:

<http://www.aas.org/cswa/MAY10/uncbias.html>

## **Efforts at the 217<sup>th</sup> AAS Meeting in Seattle, WA**

As with many companies, industries and universities, the field of Astronomy is not immune to harassment. Harassment has been a problem within the field for many years (e.g. See issues of the AAS Status Newsletter, June 1992, 1995). The proliferation of student and professional blogs now document many cases of harassment (sexual and otherwise) within the field by perpetrators at all levels. Victims of such abuses often feel alone and without recourse. Fear of not being believed or of retaliation keep those involved from reporting these incidents and often institutional policies on harassment have not been made clear or are disregarded. The CSWA and Committee on the Status of Minorities in Astronomy co-sponsored a special session, which was chaired by Dara Norman. The presentation, led by Sheryl Bruff (STScI) and Bernice Durand (UW-Madison), provided information on the different types of harassment that occur, statistics on instances of harassment, what steps you can take if you are a victim of harassment, what to expect from your host institution, and what actions institutions can take to address this pervasive and ongoing issue. Their presentation is posted here:

<http://www.aas.org/cswa/MEETINGS.html>

The CSWA Town Hall was entitled "How Men Can Help Women in Astronomy." The idea behind this was that we cannot expect the representation of women in astronomy to get better if we rely only on the efforts of those women themselves. Moreover, it is not simply a matter of removing the overt obstacles. Rather men and women both need to take active steps toward equity to make change happen. Joan Schmelz, chair of the CSWA, moderated the discussion. She presented a number of suggestions collected from members of the CSWA and readers of AASWOMEN. The ensuing discussion produced several more useful suggestions and food for thought. Ideas for encouraging women ranged from individual actions to institutional policies to directives by granting agencies. But while institutions and granting agencies can and have put rules in place to level the playing field, much power remains with individuals when it comes to the treatment of colleagues and students, selecting invited speakers and award nominees, and hiring decisions. Thus, most of the recommendations focused on steps individuals could take, such as making sure that women's voices and ideas are heard and recognized, becoming more aware of one's own biases and correct them, and speaking up when inappropriate behavior occurs. The full powerpoint presentation is available at:

<http://www.aas.org/cswa/Jan11/townhall.html>

Dr. Abigail Stewart (Univ. of Michigan) gave an invited talk entitled, "Addressing Unconscious Bias: Steps toward an Inclusive Scientific Culture." She outlined the nature of unconscious bias, as it operates to exclude or marginalize some participants in the scientific community. She showed how bias results from non-conscious expectations about certain groups of people, including scientists and astronomers. She described the scientific research in psychology, sociology and economics that has identified the impact these expectations have on interpersonal judgments that are at the heart of assessment of individuals' qualifications. This research helps us understand not only how bias operates within a single instance of evaluation, but how evaluation bias can accumulate over a career if not checked, creating an appearance of confirmation of

biased expectations. Some research has focused on how best to interrupt and mitigate unconscious bias, and many institutions--including the University of Michigan--have identified strategic interventions at key points of institutional decision-making (particularly hiring, annual review, and promotion) that can make a difference. The NSF ADVANCE Institutional Transformation program encouraged institutions to draw on the social science literature to create experimental approaches to addressing unconscious bias. Dr. Stewart outlined four approaches to intervention that have arisen through the ADVANCE program: (1) systematic education that increases awareness among decision makers of how evaluation bias operates; (2) development of practices that mitigate the operation of bias even when it is out of conscious awareness; (3) creation of institutional policies that routinize and sanction these practices; and (4) holding leaders accountable for these implementation of these new practices and policies. She closed by considering how scientific organizations can address unconscious bias and contribute to creating an inclusive scientific culture. The talk is available here:

<http://www.aas.org/cswa/MEETINGS.html>

## **Communication with the Community**

Katy Garmany (NOAO) took over as the editor of **STATUS**, the semiannual publication of CSWA. The winter issue included Anne Kinney's summaries and impressions from the Women in Astronomy III meeting in Baltimore, Rachel Ivie's results from the first survey of the Longitudinal Study, Adam Burgasser's look at mentoring, and Gerrit Verschuur's review of the book, "Under the Radar: The first woman in radio astronomy." Preparations for the June issue are underway. This will include Durand and Bruff's strategies for addressing harassment and prejudice; Meredith Danowski's article on mentoring, Schmelz and Knezek's introduction to unconscious bias, Ed Bertschinger's article on the Women of MIT meeting, and Kate Brutlag's review of "Maria Mitchell & Sexing of Science." Old issues of **STATUS** are available here:

<http://www.aas.org/cswa/STATUS.html>

The CSWA publishes a weekly email newsletter called **AASWOMEN**. There are three co-editors who take weekly turns compiling items into the newsletter and mailing it out to the subscribers. For the 2010-2011 year, the newsletter was sent to approximately 900 subscribers. A typical issue contains requests for information or advice, links to news items about women in science, announcements of honors and awards given to women in science, information about programs and meetings, and internship and job postings. Some of the topics covered over the past year included a list of what men can do to help women succeed in astronomy, subtle sexism in the workplace, a toolkit for negotiation, and a vigorous discussion about a series of articles in the NY Times by John Tierney, who posited that "the only obstacles that women in science face are themselves." The topic of gender balance at conferences continued to be discussed throughout the year, as we compiled and posted lists of the percentage of women vs. men invited speakers. Editor Joan Schmelz also compiled and posted statistics on the number of senior women (tenured) in PhD-granting Astronomy and Physics & Astronomy departments across the country. Requests for advice from subscribers included how to handle sexual harassment from students, which led to a discussion on student-faculty dating policies. We also published requests for ideas on the best policies for gender equity, how to start up a women's issues group, and how

to handle bullying, sexual harassment, and unprofessional behavior from a well-established senior researcher. A separate request for advice from a female graduate student experiencing sexual harassment from her advisor resulted in not only an outpouring of support and advice, but an active intervention by some senior women in the field across the country. This event prompted a special edition of the newsletter by editor and CSWA chair, Joan Schmelz, who wrote compellingly about her own story of sexual harassment to shed light on this often-still-taboo issue. The newsletter also published links to full-length articles on building a better pipeline for women in science, how mentoring is vital to nurturing future female scientists, and the women of the Galaxy Zoo. Past issues of AASWOMEN are available here:

<http://www.aas.org/cswa/AASWOMEN.html>

The **Women in Astronomy Blog** has expanded its offerings since fall 2010, when a rotation of bloggers Ed Bertschinger, Ann Hornschemeier, and Hannah Jang-Condell was established, with frequent additional contributions by Michele Montgomery, Joan Schmelz, and Laura Trouille. The goal of the Blog remains to reach out to a younger and broader audience, and to this end the Blog entries are reposted to the CSWA Facebook page where they attract more comments. The Blog now also includes links to share entries on Twitter and Google Buzz. The AASWOMEN weekly newsletter is also reposted to the blog, and blog entries are regularly reposted to AASWOMEN. Topics discussed this past year include breastfeeding while traveling, work-life balance, experiences starting women in science groups and dealing with various workplace and university challenges to gender equity, sexual harassment, peer mentoring, negotiating a faculty startup package, and more. The Women in Astronomy blog is here:

<http://womeninastronomy.blogspot.com/>

The Facebook page is here:

<http://www.facebook.com/pages/Committee-on-the-Status-of-Women-in-Astronomy/43977374494>

## **CSWA Web Site**

During the report period, the CSWA expanded its web site in two areas, which are included in the menu at the left-hand side of the home page.

(1) A new "Resources" section was added, including links to other sites and to on-line articles of interest. In addition to some general resources on career issues for women, it includes specialized pages on the two-body problem, work-life balance, sexual harassment, unconscious bias, re-entering the work force after a career break, and mentoring.

(2) In the Statistics section, we added a page on the percentage of female invited speakers at conferences, which, according to a perennial complaint, is unrepresentatively low. The page lists 37 astronomy conferences held since the beginning of 2009 and gives a statistical summary of the percentage of women invited speakers, along with some society membership statistics for comparison. For parity with the statistics on senior-level astronomers, women should number roughly 15 to 20% of the invited speakers at conferences, and indeed the figures are mainly in

keeping with this expectation: as of February 25, 2011, the first quartile was 13%, the median was 18%, and the third quartile was 26%. New conferences are added to this page as they take place. Only a few conferences appear to have had an unreasonably small number of invited women speakers.

<http://www.aas.org/cswa/>