

## **AWARDS: Advancing Ways of Awarding Recognition in Disciplinary Societies**

**Mary W. Gray and Bonnie Ghosh-Dastidar**

Funded by the National Science Foundation, the Association for Women in Science (AWIS) has undertaken the AWARDS (Advancing Ways of Awarding Recognition in Disciplinary Societies) project in cooperation with seven groups including the American Statistical Association (ASA); the other mathematical sciences societies AMS, SIAM and MAA; the American Chemical Society; the American Geophysical Union and the Society for Neuroscience (SfN). On June 24 and 25, AWARDS personnel and representatives of the societies met in the Washington DC area for a workshop designed to raise awareness of and strategize solutions to the underrepresentation of women among award recipients presented by the organizations themselves. The reason to focus on awards was that they provide the recognition and career boost that lead to future success, including other scholarly and grant awards from universities, foundations and similar entities. Specifically the goals of the workshop were “to develop processes customized for each organization—that foster the diversity of scientific award recipients” and then to use the lessons learned to formulate best practices for other disciplinary societies. Measuring against percentage of Ph.D’s going to women in the period 1971-2000, the percentage of scholarly awards going to women fell short in all of the societies (except the relatively new SfN); in awards for service, the situation was reversed or close to reversed in all the societies except ASA, where women are still substantially underrepresented. In ASA’s defense, its record of women presidents in recent years is stellar.

Even conceding that there is a variety of problems with the data, the overall trend was clear: either women are not worthy of recognition or they are being overlooked. A 2007 National Academy of Sciences report claimed “It is not lack of talent, but unintentional biases and outmoded institutional structures that are hindering the access and advancement of women.” How do we address the situation? Enlarging the pool of nominees by making certain that the accomplishments of women are not ignored is a basic practice that the societies were encouraged to undertake. On the other hand, the data at hand showed that even when the percentage of women nominees was substantial,

the success rate for women was not very high, particularly when the award in question was given to a single recipient. Discussion ensued on how to “game” the nomination process through strategic selection of recommenders and other processes.

Part of the explanation offered for the lack of diversity was that there was no general coordination of multiple awards committees (there are 60 awards in ASA, not including the selection of fellows). In ASA, relief is on the way with the formation of the Council on Awards to exercise some oversight of the process. It was observed by ASA representatives at the workshop (Martha Aliaga, Monica Clark, Pam Craven, Bonnie Ghosh-Dastidar, Mary Gray, Mari Palta and Ron Wasserstein) that collection and interpretation of data about Ph.D. recipients, faculty at universities, nominees and recipients of awards left something to be desired, perhaps providing fertile ground for the offer of the assistance of statisticians. It should be noted that while there is underrepresentation of women among award winners in science, the project also acknowledged a lack of fair representation of different racial and ethnic groups, and persons with disabilities. In some societies, the supply situation within the discipline is a major, but not only, problem, but in other cases it certainly is not.

A New York Times article that appeared shortly before the workshop about the accomplishments of a prominent woman scientist used as its headline her comment: "It is no longer fashionable to say out loud that you don't believe that women should be scientists, but the attitudes remain." (As a sidelight, the headline of the online version actually reflected the content of the article: “Discovering the Wonders of Skin Cells”) One session of the AWARDS workshop focused on the implicit gender bias that still exists especially in the STEM disciplines. Highlighted were expectancy bias, prescriptive gender norms, stereotyping, and role congruity/incongruity (and resulting penalties for gender norm violation), and shifting standards of excellence employed in an awards or employment context.

Examples from the literature were cited, showing that the same work was evaluated differently if the author’s name was female rather than male, that bias is apparent in the language used in letters of recommendation for women, and that there are pervasive differences in compensation and other institutional resources experienced by women. Several effective demonstrations of implicit association bias were provided. As

an antidote to the effects of implicit bias, a number of actions were proposed, including stressing the benefits of diversity and citing research on the advantages of heterogeneous brainstorming groups and of diverging viewpoints, not to mention the observation that we cannot afford to lose a significant proportion of the population capable of excellence in science.

Those who are currently serving or might in the future serve on recruitment or award committees in the ASA, other societies or in their own institutions might find some of the materials provided by AWARDS to be useful in informing themselves and others to the issues involved in implicit bias; it is available at the website of the project:

[?URL??????](#) ASA members of the task force charged with implementing recommendations of the workshop are planning to communicate with the ASA Board of Directors, the Council on Awards, and the Fellows selection committee, in particular to request a Council initiative to survey the award landscape and possible improvements to the nomination processes. The ASA Committee on Women in Statistics (COWIS) will prepare an article for *Amstat News* citing historical data and current trends and suggesting improvements in the data collection process. For example, one question for which no one had an answer was whether women are more concentrated in some statistical sub-disciplines than in others.

Activities planned for the 2011 JSM include a scientific session on Issues of Implicit Bias, a roundtable lunch on Increasing the Visibility of Women in Statistics, a more accessible “mixer” for those interested in the issue of diversity in the profession, and a meeting of women department chairs and those with equivalent positions in government and industry with a view to improve processes for identifying women for awards.

### **References:**

Biernat, M. & Fuegen, K. (2001) Shifting standards and the evaluation of competence: Complexity in gender-based judgment and decision making. (2001). *Journal of Social Issues*, 57(4), 707-724.

- Carnes, M., Geller, S., Fine, E. Sheridan, J. & Handelsman, J. (2005). NIH director's pioneer awards: Could the selection process be biased against women? *Journal of Women's Health, 14*(8), 684-691.
- Good, J.J., Woodzicka, J.A. & Wingfield, L.C. (2010). The effects of gender stereotypic and counter-stereotypic textbook images on science performance. *Journal of Social Psychology, 150*(2), 132-147.
- Heilman, M. & Okimoto, T.G. (2007) Why are women penalized for success at male tasks? The implied communality deficit. *Journal of Applied Psychology, 92*(1) 81-92.
- Ley, T.J. & Hamilton, B.G. (2008). Sociology: The gender gap in NIH grant applications. *Science, 322*(5907), 1472-1474.
- National Academy of Sciences, National Academy of Engineering & National Institutes of Health. (2007). *Beyond bias and barriers: Fulfilling the potential of women in science and engineering*. Washington DC: National Academies Press.
- Smith, F.L., Tabak, F., Showail, S., Parks, J.M. & Kleist, J.S. (2005). The name game: Employability evaluations of prototypical applicants with stereotypical feminine and masculine first names. *Sex Roles. 52*(1), 63-82.
- Uhlmann, E.L. & Cohen, G.L. (2005). Constructed criteria: Redefining merit to justify discrimination. *Psychological Science. 16*(6), 474-480.
- Wennerås. C. & Wold, A. (1997) Nepotism and sexism in peer-review. *Natur, 387*, 341-343.