

## article:1271

# Differences in Men and Women Scientists' Perception of Workplace Climate

Evidence of a chilly climate for women in science and engineering is often indirect; women scientists and engineers do not tend to say their work environments are unfriendly or biased against women. Thus, we looked for evidence of a chilly climate by comparing and contrasting men and women faculty members' perceptions of their science and engineering workplace climates. We did not expect men and women to tell us that women are treated worse than men in their departments. We did expect men to describe friendlier, more comfortable interactions than women.

Our expectations are supported by the literatures on gender bias, gender and communication, and gender and science. The gender bias literature suggests that acts of gender bias might easily be discounted or misinterpreted—and therefore go unnamed. The gender and communication and gender and science literatures suggest that communication norms in science workplaces may feel more comfortable to men than to women. Whether true or not, if this view is popularly held people might assume that uncomfortable and unfriendly interactions are explained by gendered communication norms and science norms, and not by inappropriate and biased acts.

Our paper is based on two separate but related studies. These studies were guided by the following questions: How do men and women faculty in science and engineering describe their workplace climates? In particular, how do they describe their relationships and interactions with colleagues? What role, if any, do they think gender plays in their departments in general and in their own careers in particular? These questions are important to science and engineering education because they elicit information that can be used to develop programs designed to improve the climate of academic science and engineering and, in particular, to promote women's participation in science and engineering.

We interviewed 24 women faculty members in science and engineering departments in the first study. The purpose of these interviews was to learn about the climate for women in science and engineering at their institution. We interviewed 22 men faculty members in the life sciences in the second study. The purpose of these interviews was twofold: To locate an ethnographic study in a life science department; and to learn about men's experiences in their departments and provide a broader context for analyzing women's interviews. Selection methods were chosen with the main purpose of each study in mind. Women were randomly selected to increase the generalizability of the findings. Men were selected through purposeful sampling to insure that interviewees varied with respect to certain aspects of interest.

Our ability to compare and contrast men's and women's experiences is weakened by the fact that men and women were chosen from different populations. Having said this, we note that 83% of the women we interviewed were located in the life sciences; thus, the majority of women interviewees worked in the same departments as the men interviewees. The differences in

numbers of life science and engineering women faculty reflects the fact that women are reaching parity (in terms of numbers) in most life science departments but are still underrepresented in engineering departments.

We coded interview transcripts for broad themes (e.g. communication, department atmosphere, gender). We then developed a more detailed coding scheme to capture the variety of details and nuances associated with the stories interviewees shared. Coded interviews were entered into a computer program that allowed us to compare and contrast men's and women's experiences and departmental descriptions.

We found evidence of a chilly climate. Women described less friendly environments than their male colleagues. Fewer women than men characterized their departments in overall positive terms (50% vs. 87%), and more women than men mentioned instances of uncomfortable, tense, or even hostile interactions (83% vs. 28%).

Many women wondered if the negative interactions they experienced happened because they were women, but could not say with certainty. Women identified two factors that made it difficult to decide whether gender was a factor in their experiences. First, factors other than gender (such as their junior status or the quality of their ideas) might explain their experiences. Second, while they could name instances in which they felt they were treated unfairly, they could also name instances in which they were treated fairly (e.g. they received awards, their ideas were taken up in discussion).

We suggest a third reason why women might not identify gender-biased acts: Women might expect the norms of the science workplace to align more closely with men's ways of working and communicating than with women's. When women's attempts at communication are ineffective, they might reject (or not even consider) the possibility that they are being ignored or de-valued. They might assume the burden is on them to adjust their styles and acquire a better "fit" with their workplace climate. We make this suggestion based on the fact that over half (58%) of the women said that men and women tend to communicate in different ways: Men are more successful than women at having their ideas taken up in discussions and developing collegial networks because men are more "assertive," more "direct," and more "aggressive" than women. These women said that women would communicate more effectively in their departments if they adopt "masculine" communication styles.

Our findings support the argument that women scientists and engineers experience a chilly climate in the workplace. They also demonstrate that women have a difficult time identifying gender-biased acts (both subtle and overt) and naming their workplace climate as chilly or unfriendly towards women. Given that chilly climates exist and are difficult to name, it is all the more important to develop and implement programs designed to help men and women identify factors that contribute to a chilly climate in their workplaces, and to take action to improve their climates. Local, qualitative studies that provide detail regarding the science and engineering workplace climates—including detail on gender and communication in the workplace—are needed in order to design effective programs intended to improve workplace climates.

In closing, we thank the men and women faculty members who gave their time to talk to us

about their personal and work lives. Funding for this study was provided by a National Science Foundation ADVANCE grant (#0123666).

Author 1: Ramona Gunter email: [rlgunter@wisc.edu](mailto:rlgunter@wisc.edu)

Author 2: Amy Stambach email: [aestambach@wisc.edu](mailto:aestambach@wisc.edu)

[: Back to Fall 2005 Issue Vol. 1, No. 2](#)

[: Back to List of Issues](#)

[: Back to Table of Contents](#)