Not surprisingly, girls at single-sex schools study physical science and math more than in comparable coed schools, "even though girls' schools frequently have less adequate laboratory provision than mixed schools" [Kelly 1982, page 497]

Even more ominously, [Sandler 1986, page 6] reports:

> In one study, first done in 1968 and then replicated in 1983, college students were asked to rate identical articles according to specific criteria. The authors' names attached to the articles were clearly male or female, but were reversed for each group of raters: what one group thought had been written by a male, the second group thought had been written by a female, and vice versa. Articles supposedly written by women were consistently ranked lower than when the very same articles were thought to have been written by a male [Goldberg 1968, Paludi et al 1985, Paludi et al 1983]. In a similar study, department chairs were asked to make hypothetical hiring decisions and to assign faculty rank on the basis of vita. For vitae with male names, chairs recommended the rank of associate professor; however, the identical vita with a female name merited only the rank of assistant professor [Fidell 1975].

Anti-female bias is strongest in traditionally male fields [Top 1991, pages 96-97]. [...] When a female computer science undergraduate visited one of the graduate schools to which she had been admitted, she and a male prospective student met with a male graduate student to discuss the school. Whenever the woman asked a question, the graduate student directed his answer to the male prospective instead of to her, i.e. by making eye contact and gestures toward the male prospective. This treatment surprised the woman, as she had not encountered such behavior at her undergraduate institution. After the meeting, she delicately pointed out the behavior to the graduate student, and he apologized profusely and sincerely, clearly unaware of the bias while it was occurring. When they met later in the day, his behavior was markedly better. The same woman, however, in a later meeting with two other graduate students, one male and one female, found herself addressing most of her questions to the male until she recognized her behavior and corrected it.

[...] A female undergraduate at a women's college wrote:

> The summer after my first year at [X] I took Linear Algebra at [a coed college] nearby. Out of probably twenty people in the class, I was one of two women. I found that the mood of the class was stifling. It was obvious that the men of the class expected me to sit quietly in my chair and contribute nothing and ask no questions. It was also made obvious to me that, in general, they felt they were far superior to me. Because I had had no contact with them outside of the classroom, I must assume they were basing their decision solely on the fact that I am female. In addition, I found the material relatively easy and was getting an A in the class, so they could not be basing it on my academic performance. One day as we were going over a difficult problem set we had had for homework, the professor asked if anyone was able to do a particular problem which I had been able to solve. When I raised my hand, [a student made] the comment 'What?!?! How could you have solved that problem!?!?' He in no way hid his hostility or his feelings that if he, a far superior man,

could not solve the problem, I could not have. I was completely shocked that he could make such a comment. No one else seemed to be. It is no wonder that women tend not to contribute in a male-dominated classroom.

[...] A female computer science graduate student told me that it is common to see different reactions to men and women dropping a class. According to her, when a woman drops a class, people remark that the class must have been too difficult for her; when a man quits, people say he must not have found it interesting. [...]

A male computer professional wrote:

> Back in 1983, I was a freshman here at [X] and one of my friends was a genius who happened to be a pretty blonde girl....
>
> She was also a freshman and spent one of her first days here searching for her advisor's office. While hunting around [Y] Hall, a man in his early 30's came up to her and asked if she needed help. She said that she was looking for her advisor's office. The man responded with a puzzled, 'What major are you?' When she answered, 'I'm in Electrical Engineering.' The man smiled at her and oozed, 'Oh, you're far too pretty to be an EECS major.' [She] immediately left and told us in the dorms about this slimy guy.
>
> The next day we went to our first lecture for [the introductory computer class]. [She] gasped as one of the lecturers entered the hall. He was the same slimy guy she had encountered the day before....
>
> I'll never forget the quote, "Oh, you're far too pretty to be an EECS major."[2]

At the University of Illinois, TAs and professors, both male and female, treat women students differently from male students in the classroom. As an step toward improving the current situation, the committee recommends that the following set of recommendations be distributed as a brochure to all professors and TAs in the College. In addition, the recommendations need to be distributed and discussed at the introductory meeting for Engineering College TAs each semester. Our recommended brochure content follows on the next page.

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[2]In a later note, the writer added: "[The teacher] was fired two years after this incident. According to my advisor at that time, his attitude toward female students was one of the reasons. (He was not tenure track. He was a lecturer only.)" This story was later confirmed by a former professor from the university.

HOW YOU CAN HELP
IMPROVE THE CLIMATE FOR WOMEN IN ENGINEERING

Many women experience the academic environment as a hostile one. There appears to be a lot of confusion about what type of behavior creates a hostile environment. As a guideline, we present several high-level suggestions for interacting with female students and colleagues, followed by a 'Dos and Don'ts' list of concrete examples of supportive and hostile behavior.

High-Level Guidelines

A helpful guiding principle is to *interact with female students and colleagues the same way as you would a male student or colleague.* For example, women students often have difficulty thinking of themselves as engineers. As TA's and faculty, you can help by demonstrating through your behavior that you view both female and male students as engineers. Similarly, you should avoid behavior that emphasizes women colleagues' and students' sexuality, rather than their intellect. When in doubt as to whether or not something is appropriate, ask yourself this question: "If this student were my daughter, or if this colleague were my sister, how would I want them to be treated?"

Specific Dos and Don'ts

DO call on women in class, and wait for them to answer.
DON'T be easier on the female students than the male students.

DO assign female students leadership roles in group projects.
DON'T express surprise when a female student demonstrates practical, hands-on skills, such as welding.

DO realize your female students' career choices are a natural result of their ability and interest in math and science.
DON'T ask "How on earth did you end up in engineering?"

DO have coffee or lunch with colleagues of the opposite sex.
DON'T view these events as dates.

DO refer students who are looking for help with a technical problem or a research topic to a female colleague whose area of expertise is relevant.
DON'T assume that it is your female colleagues' responsibility to mentor all the female students, and only the female students.

DO collaborate with female colleagues on proposal writing and research.
DON'T discuss the "pretty new coed" with your colleagues.

DO engage female students in informal hallway discussions.
DON'T stare at women's breasts.

DO display pictures or computer screens that convey the beauty and excitement of your work. Other office displays that make a positive first impression and stimulate students' interests might