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Information to Contributors appears on pages 36–38 of the 3 January 1992 issue. Editorial correspondence, including requests for permission to reprint and reprint orders, should be sent to 1333 H Street, NW, Washington, DC 20005. **Science Telephone:** 202-326-6500. London office: 071-435-4291. **Subscription/Member Benefits Questions:** 202-326-6417. **Other AAAS Programs:** 202-326-6400.

LETTERS

Women in Mathematics

It was difficult to recognize our profession from the 13 March special section of "Women in Science." Are there serious problems in mathematics for women? Yes, and the 18 signers* of this letter have spent a serious amount of time addressing them. But there are serious problems for any woman who aspires to excellence in our society, and even professions with large numbers of women (think of the arts) set up serious obstacles for women who attempt to play more than a supporting role.

Furthermore, the emphasis within the article on the role of sexual innuendo seemed quite misleading, distracting from the real issue, which is society's belief that (i) women can't do mathematics and (ii) if they do, it's by definition not too good. Sexual innuendo is just one (and a fairly minor one in the mathematics community) manifestation of these beliefs, and it is these beliefs that are the major issue.

In spite of all of the hassles, women continue to do good mathematics and *enjoy* it too! The persistence and existence of women mathematicians witness this fact. Do they get sufficient recognition for their achievements? Probably not, but they get more recognition now than they did 15 to 20 years ago. Is mathematics worse than chemistry or biology? We just don't know, and the articles in *Science* have not helped us find out.

A reader seeking a more balanced report on the status of women mathematicians might want to begin with the September 1991 issue of the *Notices of the American Mathematical Society* (vol. 38, no. 7), which was a special issue on women in mathematics. The articles on women in the profession from this issue of *Notices* are available in bound-together reprint form and can be obtained from the society's office at Post Office Box 6248, Providence, Rhode Island 02940–6248.

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Paul Selvin's article of 28 June 1991, "Does the Harrison case reveal sexism in math?" (News & Comment, p. 1781), contains a table listing by gender the numbers of tenured and untenured faculty in mathematics at ten academic institutions in 1990–1991. The table is becoming a standard reference in the discussion of women in mathematics. It is referred to at least twice in the 1991 Special Issue on Women in Mathematics of *Notices of the American Mathematical Society* (*1*). It is therefore important to point out that its information is not altogether correct.

The table reports 35 tenured members of the mathematics department at Princeton, when the actual number was 24 plus six joint appointments with other departments, for a highest possible total of 30. As the table correctly reports, none of the tenured members was a woman. But the table incorrectly reports no untenured women when Princeton had four—one assistant professor and three instructors—in positions that could lead to tenure.

I have contacted the other academic institutions listed in the table and have been informed that there were additional errors. The table reports 13 untenured positions with no women at Harvard, when 3 of the 13 were women, who held the position of preceptor. Yale had nine untenured people in its department, even though the table reports it had none; one of the nine was a woman. In addition to the one tenure-track woman reported at Michigan, there were five more women at the assistant professor level that might lead to tenure. There were four women (not the zero reported) at Massachusetts Institute of Technology; they were instructors. Finally, the table reports one tenure-track assistant professor at California Institute of Technology when there were two, one a woman. Altogether, only 1 woman is reported when there were 19. Eight of the 19 were assistant professors, 8 were instructors, and 3 were preceptors.

Even correctly counted, the number of

women in relation to men is not good. But it is a real disservice to present the situation as worse than it actually is. The table and the erroneous reference in its title to a "shutout" create an illusion of insuperable odds for women interested in mathematics that is not supported by the facts.

Jacquelyn Savani
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REFERENCES AND NOTES

1. See especially A. T. Schafer's article "Mathematics and women: Perspectives and progress" [*Not. Am. Math. Soc.* **38**, 735 (1991)].

Response: *Science* applauds Savani in her effort to find out what the status of women in mathematics is at some of the most distinguished universities in the United States. Her letter, however, is directed at a different issue from what the table accompanying Selvin's article was attempting to address. The table was intended to specifically list those in tenure-track positions. Savani's remarks are directed to the total number of untenured faculty—including both those in tenure-track jobs and those in nontenure-track positions. Under any classification, women are underrepresented, but a carefully revised and updated version of the table for the academic year 1991–1992, which appears on page 323 of this issue, shows that the situation is particularly depressing for tenured and tenure-track positions: the number of women there remains very low.—**Eds.**

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Miscarriage Study

Joseph Palca's article "Banking for transplantation research" (News & Comment, 29 May, p. 1274) conveys a misleading impression regarding data on miscarriages for fetal tissue transplant research that I supplied to Congress. Palca states that I "made no attempt to determine whether viral or bacterial infection might make tissue that [I] classified as acceptable unsuitable for transplantation."

The study referred to [J. Byrne *et al.*, *Teratology* **32**, 297 (1985)] is the largest and most comprehensive to date on the pathology of miscarriages. From January 1977 to August 1981 I was the leader of a team that evaluated more than 3500 miscarriage specimens for evidence of gross disorganization and dysmorphology. The overall study goals concerned the genetic and environmental causes of miscarriage. Detecting infection was not an objective. I suspected then (and still do) that infection might be a causal factor in miscarriages, but attempts to obtain funding for a study were unsuccessful. Transplantation research was also not part of our study. We supplied different kinds of tissue to local investigators. They found this tissue suitable for their purposes which, 10 years ago, probably did not include transplantation.

The information given to Congress referred only to well-preserved specimens and did not include data on fetuses that had died some time before delivery. The data indicate that enough miscarriage tissue could be obtained for tissue banks (Byrne *et al.*). How much, and under what conditions, would be a probable subject of study by the new tissue bank program.

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Cold Fusion: Not Nuclear

In his News & Comment article "A Japanese claim generates new heat" (24 April, p. 438), David H. Freedman reports, "Peter Hagelstein . . . asserts in a paper to be published in the *Journal of Fusion Technology* that neutrons are emitted in cold-fusion reactions—but are promptly absorbed by the palladium lattice." Prompt absorption of neutrons by the palladium lattice can only mean that they are absorbed by palladium *nuclei*. This would lead to several radioactive palladium isotopes, emitting β- and γ-rays, and the intense γ-rays should have been noticed by those researchers who looked for γ-rays from cold fusion. Thus, since neither such a radioactivity nor tritium, helium, or neutrons have been found, all proposed nuclear explanations of the heat generated in D_2O-palladium cells have been excluded.

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Corrections and Clarifications

In the letter of 19 June 1992 (p. 1613) by Ellen C. Weaver and Stephanie J. Bird of the Association for Women in Science (AWIS), an incorrect phone number was given for the AWIS mentoring program. The correct number is 800-886-AWIS.