CSWP GAZETTE

A Newsletter of the Committee on the Status of Women
in Physics of the American Physical Society

March-April 1985 Volume 5, Issue 1

FOREWORD TO OUR READERS

The first meeting of the CSWP in 1985 was delayed until the latter part of February, when we met via teleconferencing facilities. Thus this issue has been somewhat delayed.

We are pleased to announce the 1985 Committee on the Status of Women in Physics. The complete list of members with their addresses and telephone numbers is provided for your convenience. I am personally particularly pleased to note that Barbara Wilson, Joan Kowalski, and Marie Machacek are joining Julia Thompson, Luisa Hansen (of Lawrence Berkeley Laboratory, a past CSWP Treasurer and *Gazette* article writer) and me on the editorial board of your *CSWP Gazette.* An upcoming issue, to be coordinated by Dr. Wilson and Dr. Kowalski, concentrating on science education issues, is in the planning stages. Anyone interested in becoming a member of the editorial board is cordially invited to contact any of the current listed members. Also, contributions of short items or articles of any length compatible with our format are gleefully received. A number of very helpful suggestions, some from authors not wishing explicit acknowledgment, have been received in the recent past. Some letters follow in this issue. On the other hand, the WE HEAR THAT . . . column is not present in this issue simply because I had no new material for it.

A Roster Questionnaire has been enclosed in this issue, partly because there was space, but also in honor of many new names and addresses that have been recently added to the Roster of Women in Physics as a result of a search through the latest *AIP Directory of Physics and Astronomy Staff Members.* Updating of our Roster must be an ongoing project. I would very much appreciate receiving completed data forms from all of you who are receiving a copy of the *Gazette* for the first time or who have again begun receiving mail from us after a lapse. The *Gazette* is published about four times each year by the APS and is mailed without charge to the women listed on the Roster. Additional data, as provided by the Questionnaire, enable the Committee to do some limited demographic studies and also form a data base for mailings of possible interest to special subsets of persons listed on the Roster. All data are held in strict confidence and copies of the Roster are not made available to anyone. All mailings are done via a blind mode whereby batches are sent to the firm handling our computer files for addition of the mailing labels.

Thank you for all your assistance and forebearance.

Sincerely,
Irene M. Engle
Managing Editor

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LETTERS TO THE EDITOR

The following two letters are in response to an anonymous letter (by editorial decision) from a woman physicist working at Los Alamos. The original letter was published in Volume 4, Issue 2 (Spring 1984) and has been the most successful *Gazette* letter to date in arousing thought and epistolary reaction from our readers.

Dear Dr. Engle:

I wrote a rather lengthy response to the May letters, which I never got around to mailing. In view of the letters in the September *CSWP Gazette,* I'd like to comment briefly on the two-career problem, and also to suggest an answer to one of Teresa Gordon's questions.

I am a "back-door" physicist. My Ph.D. is in physical chemistry; physics was my minor, along with math. My research was done, thirty years ago, in the field of molecular spectroscopy and the calculation of thermodynamic properties from spectral data. I had three children (one a week old) when my Ph.D degree was awarded. I was 26 at the time, having been away from the lab for two and a half years. My major professor did not see why I wanted to go on and complete my degree after I had a husband and children; that made him a very slow reader of my dissertation. My husband, meanwhile, had completed his degree (same professor) and gone to work in the chemical industry. I joined him as soon as my research was completed.

My talent is for teaching. I am at best a mediocre research scientist. Our intention all along was that both my husband and I would join the chemistry faculty of some university that would provide him with research opportunities and allow me to teach, since college teachers can have a very flexible schedule, ideal for young mothers. The only thing that didn't work out according to plan was that Auburn University, which hired my husband as an associate professor of chemistry in 1957, hired me first to teach science to elementary school children on educational television. Shortly, my "sponsor," the physics department, had me teaching general physics to college students, as well. Because of my breadth of background, I was asked to develop an introductory physical science course for elementary education students. I have taught this course for fifteen years now, and have published two textbooks and a laboratory manual for it.

I have also been a Girl Scout leader for 25 years, starting when my oldest was a Brownie. When the two boys came along, I was Den Mother for the Cub Scouts, too. (I also have taught Sunday School for more than 30 years!) In 1980 when the fourth child entered college, I ran for City Council. This summer I got reelected.

I have been extremely fortunate. My husband devotes his full working time to chemistry teaching and research, with no extracurricular interests except at home, where he was a concerned and caring parent—actually, to a greater extent than I was. I wasn't much good with babies, but he was. He has always been totally supportive of my career in science, in civic affairs, and now in politics. We found our niche relatively early in life, and were able to settle into jobs we find both useful and enjoyable. I guess "getting ahead" and winning fame and fortune were not our major goals. Perhaps people of very great talent and drive could not find satisfaction in our kind of life, but then there are probably potentially more people like us than there are Nobel prize winners! My message, I guess, is be yourself, be the best you can be, and be content with that. Don't try to fit someone else's model or expectations.

To Ms. Gordon: For the last six years or so I have taught a laboratory science course on Saturday mornings to children in grades 4, 5, and 6. It includes three physics sessions (measurement, optics, electricity), two chemistry sessions (inorganic and organic), and one astronomy session. I would be glad to supply details on request, or, see *Science and Children,* Nov.-Dec. 1982 or *Journal of College Science Teaching,* March-April 1984. You can teach youngsters to enjoy science by doing "the real thing" at an appropriate level.

To Dr. Trimble: I can't type; I have a great secretary!

Charlotte R. Ward
Associate Professor
Physics Dept.
Auburn University, AL 36849

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Copy Editor, *CSWP Gazette:*

I would like to address some comments to the author of the letter to the editor of May 1984, from Los Alamos. First, as a daughter of someone who raised a family out of a sense of "duty" when she would rather have pursued a career, I would like to state the opinion that it is better for such women to have "career first, family later, maybe." Second, I would like to state the fact that it is not impossible to study physics with a baby on the floor. Third, if the writer has better things to do than pursue physics, why is she bitter? Fourth, considering the appalling lack of science teachers in this country, it seems to me that there is a great demand in the teaching profession for scientifically trained persons who wish to have more time to devote to family life than many careers provide.

Name withheld at author's request

The next letter comes from a young woman whom I met in the summer of 1983 while attending a conference on the Jovian and Saturnian magnetospheres at MIT. Dr. Bagenal was a speaker at the conference. At the time, she was a post-doctoral research associate at MIT, but was looking forward to relocating to the Imperial College of Science and Technology in London. She writes from that location. Your thoughtful reactions and commentary are invited.

The Editor, *CSWP Gazette*
Dear Editor,

As my scientific career is founded on a six-year spell in the United States and crucially influenced by the encouragement of American women physicists, I greatly appreciate hearing news of CSWP activities.

I have since returned to a physics department in Britain with only one woman (soon to retire) on the 90-strong faculty and not many more post-docs. Although the staff generally encourage women students the numbers have remained roughly constant at 13% for several years and the rate of transferral to other subjects (usually applied sciences) is much higher for women than men. Obviously these situations have many causes which are often hard to pin down. Nevertheless I personally feel a major factor is the image of physics as a very elite subject. For myself, I constantly felt as a student I was being allowed to study the hallowed subject for only a short while longer and eventually I would have to admit defeat and turn to applied sciences. This feeling even persists today and I have a hard time calling myself a physicist even though I have been employed for over 5 years and now teach in top-rank physics departments.

Thus I was somewhat irritated by the comment in the Nov.-Dec. *Gazette* on the "sad news" that "there were no physicists" among the VPW awardees while in the next it is announced that the award has been given to an astronomer. Now I realize I am being rather fussy and perhaps the astronomer in question might prefer not to be regarded as a physicist. Nevertheless I feel these semantic issues contribute significantly to the impediment of women in science. I would be interested in hearing other women's opinions on the subject of women and the image/status/philosophy of physics.

Yours sincerely,
(Dr.) Fran Bagenal

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QUESTIONNAIRE FOR THE ROSTER OF WOMEN IN PHYSICS
COMMITTEE ON THE STATUS OF WOMEN IN PHYSICS
THE AMERICAN PHYSICAL SOCIETY

The information from this questionnaire will be used to compile rosters of women in physics, to form a mailing list for the CSWP Gazette, to select women to receive announcements of probable interest to them, and to compile demographic data on women physicists. This information will not be made available to commercial or political organizations as a mailing list. Being listed on the roster only identifies the woman as a physicist and does not imply agreement with or support for the activities of the Committee on the Status of Women in Physics.
INSTRUCTIONS: Please indicate your responses to the following by printing one character within each pair of tick marks. Abbreviate as necessary.

NAME: 1 (last) 16 1 (first) 14
1 (middle) 14 1 optional: (maiden) 16

My Roster of Women in Physics data provided is:
☐ A new entry ☐ A revised/updated entry ☐ I don't know which
If this is a revised/updated entry, please provide your Roster Registration number, if known _____
(Your Roster Registration number appears in the upper right hand of mailing labels produced from the Roster.)

On the following line, please enter your full name and title exactly as you wish it to appear on your mailing label.

1 30

Please enter the address and phone number at which you prefer to be contacted and indicate whether: ☐ Home or ☐ Business

ADDRESS line 1: 1 28
Address line 2: 1 28
Address line 3: 1 28
City/State/Zip: 1 (city) 19 (state) (zip)
Primary phone: (area) / (number) Alternate phone: (area) / (number)

DEGREES	YEAR received or expected	INSTITUTION
BA/BS		1 28
MA/MS		1 28
PhD		1 28

THESIS TOPIC (highest degree) 1 28
(continue if necessary) 1 28
EMPLOYER NAME: 1 28
DEPT/DIV ETC: 1 28
POSITION TITLE: 1 28
COMMENTS:

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Highest Degree (check one) — Current Interest (check one)

FIELD OF PHYSICS

1 ___ Astronomy & Astrophysics
2 ___ Acoustics
3 ___ Atomic & Molecular Physics
4 ___ Biophysics
5 ___ Chemical Physics
6 ___ Education
7 ___ Electromagnetism
8 ___ Electronics
9 ___ Elementary Particles & Fields
10 ___ Geophysics
11 ___ High Polymer Physics
12 ___ Low Temperature Physics
13 ___ Mathematical Physics
14 ___ Mechanics
15 ___ Medical Physics
16 ___ Nuclear Physics
17 ___ Optics
18 ___ Plasma Physics
19 ___ Physics of Fluids
20 ___ Thermal Physics
21 ___ Solid State Physics
22 ___ General
23 ___ Condensed Matter Physics
24 ___ Space Physics
25 ___ Other (please specify below)

_____
_____

CURRENT WORK STATUS
(Please check one or more as applicable)

1 ___ Student
2 ___ Post Doc/Res Assoc
3 ___ Unemployed
4 ___ Retired
5 ___ Employed
6 ___ Self-employed
7 ___ Full time
8 ___ Part time

FOR HIGHEST DEGREE (Please check one)

1 ___ Theoretical
2 ___ Experimental
3 ___ Both
4 ___ Neither (please explain below)

_____
_____

TYPE OF WORKPLACE FOR CURRENT OR LAST WORK (Please check one or more)

1 ___ University
2 ___ College—4 year
3 ___ College—2 year
4 ___ Secondary School
5 ___ Government
6 ___ National Laboratory
7 ___ Industry
8 ___ Non-Profit Institution
9 ___ Consultant
10 ___ Other (please specify below)

_____
_____

TYPE OF ACTIVITY (Please enter a 1 for the activity in which you engage most frequently, 2 for the second most frequent, etc. for all significant aspects of your current or last work)

1 ___ Basic Research
2 ___ Applied Research
3 ___ Development and/or Design
4 ___ Engineering
5 ___ Manufacturing
6 ___ Technical Sales
7 ___ Administration/Management
8 ___ Writing/Editing
9 ___ Teaching—Undergraduate
10 ___ Teaching—Graduate
11 ___ Teaching—Secondary School
12 ___ Committees/Professional Org.
13 ___ Proposal Preparation
14 ___ Other (please specify below)

_____
_____

Thank you for your participation.
Please return the questionnaire to:

Dr. Irene Engle
Physics Dept., U.S. Naval Academy
Annapolis, MD 21402

Are you interested in receiving information on employment opportunities? _____Yes _____No

CSWP SYMPOSIUM IN BALTIMORE

CSWP sponsored a symposium "Women in Science: Factors in Success" at the APS meeting in Baltimore on the evening of Thursday, 28 March. Speakers and their topics included: Julia Thompson, Univ. of Pittsburgh, "The Tenured Process for Female and Male Physicists," Margaret A. Cavanaugh, St. Mary's College, "American Chemical Society Survey on Women Chemists," and R. Marcus Price, University of New Mexico, "Things Change Yet They Stay the Same."

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NEWSFLASH

Gloria Lubkin was named the Editor of *Physics Today*. The announcement was made at the Baltimore APS meeting.

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STUDY OF WOMEN PHYSICISTS

Professor Sylvia Favia and Dr. Rosalie G. Genovese of the Center for the Study of Women and Society at CUNY are planning a study of women physicists as a part of a continuing interest in the careers and life histories of women.

They have chosen to study women physicists for several reasons. First, they think it is important to concentrate on women in one field. Many large-scale statistical studies aggregate data on women and men in the natural, physical, and social sciences, blurring important distinctions among fields and differences in the numbers and status of women within them. Second, the number of women physicists is still small and women occupy few positions at the upper levels of academia and industry. They wish to investigate the reasons for this situation by collecting data on the careers and life courses of individual women and men. Third, an unscientific count reveals a high proportion of physicist couples, with important implications for individual and dual careers.

Before beginning the in-depth study, Dr. Favia and Dr. Genovese wish to do a survey of as large a sample of women physicists as possible, using a short, structured questionnaire. CSWP has made the Roster of Women in Physics available as a data base. (This is being done on a strictly confidential, blind basis, as with other mail clients. No one's name is supplied; Wilson Associates will affix prepared mailing labels to the prepared batch of material to be mailed.) Thus, in the near future, you may well receive a copy of the questionnaire. CSWP (and, we hope, most of you) is very interested in the possible results of this study. We thus strongly urge you to cooperate as fully as possible. The study has no current funding, but we hope that that state of affairs will be rectified to facilitate the in-depth portion of the study.

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NEWLY ELECTED FELLOWS

The following women were among the physicists reported as having recently been elected to Fellowship in APS in Bull. Am. Phys. Soc. **30**, 90 (1985).

DIVISION OF ASTROPHYSICS

Miriam Ausman Forman
Citation: "For fundamental contributions to the theory of propagation and acceleration of energetic particles in the solar system and for applications of the theory in the interpretation of observations."

DIVISION OF BIOLOGICAL PHYSICS

Laura Eisenstein
Citation: "For contributions to the understanding of biological molecules and molecular assemblies from a physical viewpoint through spectroscopic studies of transient phenomena."

DIVISION OF ELECTRON AND ATOMIC PHYSICS

Patricia Moore Dehmer
Citation: "For seminal contributions to the experimental study of photoionization and photodissociation."

DIVISION OF PARTICLES & FIELDS

Margaret Alston-Garnjost
Citation: "For contributions to the discovery and measurements of properties of both light and heavy quark resonances."

Angela Barbaro-Galtieri
Citation: "For contributions to the discovery and measurements of properties of both light and heavy quark resonances."

Mary K. Gaillard
Citation: "For contributions to the phenomenology of gauge theories of the strong, electromagnetic and weak interactions."

Juliet Lee-Franzini
Citation: "For contributions to the understanding of the physics of the production and decay of new massive quark-antiquark systems, to our knowledge of the weak interactions there and in hyperon decay, and of diffractive strong interactions at high energy."

Vera G. Luth
Citation: "For contributions to the discovery of new particles and to the determination of their properties."

Helen R. Quinn
Citation: "For contributions to gauge theories of elementary particles, including influential work on renormalization in grand unified theories and studies of CP violation which led to the idea of the axion."

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THE DUDLEY OBSERVATORY ERNEST F. FULLAM AWARD

The purpose of the Fullam Award is to provide encouragement and support for an innovative research project in astronomy or astrophysics to be undertaken by a staff member or post-doctoral student associated with a college, university, or observatory located in New York State or New England. The award consists of $5,000. Deadline for completed applications is 1 June. The application should include: (1) A letter of nomination from your observatory or department, (2) an account of the project for which the award will provide some support, (3) two letters of recommendation from scientists who can judge the merit of the application, and (4) a biographical sketch and personal bibliography.

Interested applicants should contact:
Fullam Award Committee
Dudley Observatory
69 Union Avenue
Schenectady, New York 12308