## NEWSLETTER

Mary W. Gray, chairman AWM Department of Mathematics The American University Washington, D.C. 20016

Membership in the Association of Women Mathematicians has been growing steadily. Prof. Alice Schafer of Wellesley has reported that a group of Boston area women mathematicians met to discuss some issues such as opportunities for graduate students and employment practices. If you would like a list of AWM members in your area, please write and ask.

There will be a panel discussion on the role of women in mathematics at the summer MAA meeting at Penn State. Participants will be Prof. Christine Ayoub (Penn State), moderator, Prof. Mary Gray (American), Prof. Gloria C. Hewitt (Montana), and Prof. Mary E. Rudin (Wisconsin). AWM members are urged to be on hand for this discussion. Time: Monday, August 30, 3:10 p.m.

HEW
There have been a number of inquiries regarding the filing of complaints with HEW. The best source of assistance in this matter is Dr. Bernice Sander

WEAL
10700 Lockridge Drive
Silver Spring, Md. 20901 (301) 593-2399. Dr . Sandier has been responsible for filing many of the 243 complaints which have been lodged against universities and colleges. (According to Women Today, 83 reviews have been conducted and 160 complaints are pending.)

The basis of the complaints is not a law, but rather Executive Order 11246, amended by Executive Order 11375 (effective October 1968), forbidding discrimination by Federal contractors because of sex (as well as race, color, religion or national origin). There is no exclusion for educational institutions. Discrimination is not illegal-it can simply lead to cancellation of existing contracts or failure to make new grants. The contractors must not only not practice discrimination, but must have an affirmative action plan if necessary to remedy the effects of past discrimination. Contractors with at least 50 employees and a contract of $\$ 50,000$ or more must develop a written affirmative action plan. HEW has been designated as the compliance agency responsible for the enforcement of the executive order for all university contracts. Therefore, the Office for Civil Rights of HEW conducts investigations of complaints. File complaints with the Secretary of HEW (Washington).

A complaint need only show patterns of discrimination, although individual cases may be cited; the more information contained in it the better. A warning, however: apparently the HEW investigators do not interview the individuals listed as having complaints or those signing a general complaint. Several methods may be used to show patterns; for example, cite the percentage of women faculty at each
rank to show the tendency to bunch them at assistant professor and lower. Also the percentage of women in high administrative posts can be given. Another technique is to focus on specific departments, comparing the percentage of women on the faculty versus the percentage of women holding earned doctorates in the field. Some percentages of doctorates awarded to women in selected fields in 1967-68 are (source: Earned Degrees Conferred: Part A-Summary Data, Office of Education, $\overline{\mathrm{CE}-5401} \overline{3-68-\mathrm{A})}$ :

| General biology | 29 | Early childhood education | 100 |
| :--- | :--- | :--- | ---: |
| General zoology | 14.8 | Elementary education | 42.4 |
| Bacteriology, virology, | 18 | Secondary education | 17 |
| microbiology |  | Adult education | 21.4 |
| Biochemistry | 22.3 | Counseling, guidance | 20.9 |
| English, literature | 27.4 | Educational psychology | 28.4 |
| Journalism | 15.6 | Library science | 31.8 |
| Linguistics | 20.6 | Philosophy | 9.1 |
| French | 38.1 | Chemistry | 8 |
| Spanish | 31.7 | Psychology | 22.5 |
| German | 23.9 | History | 13 |
| Political science | 11.3 | Anthropology | 23.9 |
| Speech, drama | 18.5 | Sociology | 18.5 |
| MATHEMATICS | 6 | Social work | 22 |

If the university has an anti-nepotism rule, that should be noted as HEW has unequivocally demanded that such rules be rescinded. Prof. Judith Elkins of Ohio State may be able to provide some information and advice on this subject. Another item to be investigated is whether there are discriminatory admission quotas (undergraduate and graduate). The following are excerpts from the HEW requirements for ending sex discrimination at the University of Michigan:

The university must:

1) Achieve salary equity in every job category in the university. 2) Compensate, through the payment of back wages, each female employee who has lost wages due to discriminatory treatment by the universtiy (retroactive to 13 October 1968).
2) Achieve a ratio of female employment in academic positions as least equivalent to availability as determined by the number of qualified female applicants.
3) Increase ratios of female admissions to all Ph.D. graduate programs.
4) Increase the participation of women in committees involving the selection and treatment of employees.
5) Develop a written policy on nepotism which will insure correct treatment of tandem teams.
6) Analyze past effects of nepotism and retroactively compensate (

13 October 1968) any person who has suffered discrimination.
8) Assure that female applicants for nonacademic employment receive consideration commensurate with their qualifications.
9) Assure that all present female employees occupying clerical or other nonacademic positions and who possess qualifications equal to or exceeding those of male employees occupying higher level positions be given primary consideration for promotion to higher level positions. (See also Science, 20 November 1970.)

Complaints have been filed against the entire state university systems of California, New York and Florida, all medical schools, the community college system of Florida, the California state college system, CUNY, Harvard, Radcliffe, George Washington, Clark, Northeastern, Rutgers, Boston, Tufts, MIT, Columbia, Brown, Amherst, Smith, Brandeis, Lincoln, DePauw,

Marymount, Holy Cross, Wayne State, Carnegie-MeIlon, Brooklyn College, College of William and Mary, the universities of North Carolina, South Carolina, Chicago, Pittsburgh, Massachusetts, New Hampshire, Connecticut, Miami, Georgia, Michigan, Minnesota, Wisconsin and Tennessee and many others.

Affirmative action
One of the HEW requirements for contract compliance is an affirmative action plan for the hiring and retention of minority groups and women. Does your university have one which specifies women?

Many schools claim to include women in their minority group plans, but experience has shown that unless special attention is devoted to this area it gets neglected. In particular, the males in charge of the program may be insensitive. For example, when an affirmative action plan for women was adopted by The American University, it was suggested to the Equal Employment Opportunities Officer (a man) that additional staff was needed to administer the plan--preferably a woman who was aware of the problems. His reply: "Oh yes, we really need a woman in the office, especially if she can type. ${ }^{19}$

The American University plan is reproduced below. The hangup-once an effective administrator is put in charge--in making plans work is finding the qualified women applicants. In addition to the professional groups such as AWM, the AAUW maintains a list of women seeking employment and Mount Holyoke is alleged to do the same (not just its alumnae).

Affirmative Action Plan
The American University, a prime national government contractor, has established an affirmative action program designed to insure equal employment opportunities on our faculty for women. In order to put this program into effect, the following procedures are to be followed beginning immediately.
Hiring faculty and staff

1. All letters and communications announcing faculty or staff vacancies or soliciting nominations for faculty appointments are to carry in a
prominent position a statement that The American University is an equal opportunity employer.
2. A notice of intent to seek candidates must be sent to the office of the Dean for Graduate Studies and Research at the time the existence of a vacancy becomes known to the teaching unit or its executive officer. This procedure is to be followed for both new and vacated faculty positions. It is to be used whenever faculty appointments are contemplated, whether or not a line item currently exists in the budget. The notice must include information concerning the opening, the minimum qualifications acceptable and must list the recruitment sources utilized. When standard letters or notices are distributed, a copy should be attached.
3. The office of the Dean for Graduate Studies and Research will develop and maintain a file of recruitment sources which will be available to all teaching units. Special emphasis will be placed upon sources for the recruitment of women. Sources to be utilized include registries maintained by women's professional organizations (see attached list). Letters should be sent to the appropriate department chairman in leading universities soliciting applications from qualified women.
4. Upon receiving a complete notice of vacancy from any teaching unit, the office of the Dean for Graduate Studies and Research will supply that
 form must list the number of persons contacted for each source, the number of these persons known to be women, the names of the persons known to be women, and the individual hired for the position. Copies of correspondence and other information pertinent to recruitment sources may be included at the discretion of the teaching unit.
5. No person is to be denied employment because of relationship by blood or marriage to an employee of The American University.
6. Special attention is to be given to the recruitment of women for
policymaking administrative positions at the level of dean and above. Appointments of department chairmen are to be reviewed to ascertain whether adequate consideration was given to qualified women candidates.

Retention and promotion of faculty

1. Special attention is to be given to adequate representation of women on teaching unit and university promotion and tenure and faculty relations committees. If existing rules of membership perpetuate imbalances, the rules are to be changed.
2. The office of the Dean for Graduate Studies and Research is to review all personnel actions for evidence of patterns of discrimination.
3. A list of the number of women and the total number of faculty in each rank is to be compiled and circulated. Average salary figures broken down by sex are to be published. Affirmative action is to be taken to remedy inequities.

Staff
Job classifications are to be reviewed to determine whether men and women with similar qualifications doing similar assignments have the same classification.

Women's caucuses and committees of professional associations
American Anthropological Association
Committee on the Status of Women in Anthropology
Prof. Patricia S. Lander
Dept. of Anthropology
Columbia University, New York, NY 10027
American Association of Law Schools
Women in the Legal Profession
Prof. Fredericka Lombard
School of Law
Wayne State University, Detroit, MI 48202
American Chemical Society
Women's Service Committee
Mrs. Helen Free
Ames Co. Elkhart, IN 46514
American Historical Association
Committee on the Status of Women
Prof. Willie Lee Rose
Dept. of History
Univ, of Virginia, Charlottesville, VA 22903
Coordinating Committee on Women in the Historical Profession
Dr. Berenice A. Carroll
Dept of Political Science
Univ. of Illinois, Urbana, IL 61801
American Library Association
Task Force on the Status of Women in Librarianship
Ms. Kay Ann Cassell

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Miss Lina Robson
Undergraduate Library
Univ. of North Carolina, Chapel Hill, NC 27514
American Philosophical Association
Subcommittee on Status of Women in the Profession
Prof. Margaret D. Wilson
Dept. of Philosophy, 1879 Hall
Princeton Univ., Princeton, NJ 08540
American Political Science Association
Committee on the Status of Women in the Profession
Dr. Josephine E. Milburn
Univ. of Rhode Island, Kingston, RI 02881
Women's Caucus for Political Science
Box 9099
Pittsburgh, PA 15224
American Psychological Association
Task Force on the Status of Women in Psychology
Dr. Helen Astin, Director of Research
University Research Crop.
4301 Connecticut Ave., N.W., Washington, DC 20008
Association for Women in Psychology
Dr. Leigh Marlowe
Manhattan Community College
180 West End Ave., New York, NY 10023
American Sociological Association
Ad Hoc Committee on the Status of Women in Sociology
Dr. Elise Boulding
Behavioral Science Institute
Univ. of Colorado, Boulder, CO 80302
Sociologists for Women in Society
Dr. Alice Rossi
Dept. of Sociology
Goucher College, Towson, MD 21204
American Speech and Hearing Association
Subcommittee on the Status of Women and Caucus on Status of Women
Mrs. Dorothy K. Marge
8011 Longbrook Rd., Springfield, VA 22152
Modern Language Association
MLA Commission on the Status of Women in the Profession
Dr. Florence Howe
Goucher College, Towson, MD 21204
Women's Caucus of the MLA
Prof. Verna Wittrock
Dept。 of English
Eastern Illinois Univ., Charleston, IL 61920
Professional Women's Caucus
P.O. Box 1057Radio City Station, New York, NY 10019
Association of Women Mathematicians
Prof. Mary Gray
Dept. of Mathematics
The American Iniversitv, Washinoton

American Physical Society Committee on Women in Physics
Dr. Vera Kistiakowsky
Nuclear Physics Lab
MIT, Cambridge, MA 02139
Defensive action
Women in mathematics, as well as in other fields, are frequently put on the defensive by being challenged to name great women mathematicians. The reply can be a numbers game, an appeal to the adverse effects of early conditioning, a claim that the establishment (i.e., men) deliberately tries to keep women from gaining recognition, etc. However, a better response is to list a number of present and past women mathematicians who have made significant contributions. Also, in a well-researched article in Science, 25 September 1970, // Patricia Albjerg Graham shows that women are more productive researchers than are men.

Young women in mathematics need to be encouraged to think of themselves as potential Fields medal winners.

An interesting publication, Women's Place: Options and Limits in Professional Careers by Cynthia Fuchs Epstein, is available from the University of California Press, Berkeley, CA 94720 ( $\# 2.45$ ).
Graduate students
If in the belt-tightening taking place, you see women being deprived of assistantships on the grounds that l) their husbands can support them or 2) they have no families to support or 3) they will never be productive mathematicians so are not deserving of support no matter how well they have done so far, and if quiet persuasion does not alter the situation, make a fuss. Talk to the university's equal employment opportunities officer (there should be one), threaten HEW intervention, write your Congressman, enlist the support of local chapters of NOW or WEAL, inform the press.
Faculty
The same can be said for the case of women faculty not being hired or retained. Committee $W$ of the AAUP is interested in this problem also. Contact Prof. Alice Rossi, Goucher College, Committee W chairman, or Mrs. Margaret Rumbarger, AAUP associate secretary, One Dupont Circle, Washington, D.C., 20036. The AAUP has recently drafted a statement opposing anti-nepotism rules.

It is also a good idea to check the employment policies of companies which recruit on campus.

## Subtleties

One big problem which is not easily attacked is the role-assignment which may pursue the woman mathematician throughout her career. It is easy to refuse coffeemaking jobs--although there is a report of a
woman fired from an English denartment for refusing to make drapes-and eve. che secretary of-comittee jobs. However, there is a tendency to put women on undergraduate committees or curriculum committees or assign them the important but very time-consuming undergraduate advisor jobs. While no one denies that each person should take his turn at such things, what one must guard against is establishing a pattern.

When a vacancy in a department chairmanship occurs, one should be ready with the names of qualified women to propose for the position. The same is true for positions as deans, vice-presidents and presidents. Long Beach State was recently making a big effort to find qualified women applicants for a deanship.

## Child care

At The American University a recent change in faculty personnel policies will list child care as one of the reasons for which leave of absence may be granted. Moves are underway at several universities to establish regular parttime positions leading to tenure. Several professional organizations (such as the American Political Science Association) have passed resolutions, at the urging of women's caucuses, supporting this policy.

Women faculty are working with student groups to get day-care centers established on or near campuses under university auspices and in some cases with subsidies for children of students and low-paid clerical and food workers.

Employment register
The register this year was not very successful. First of all, it was late getting organized and secondly, too few of those filling positions are concerned to find women applicants. If job seekers consider the register open as of September 1 for 1972-73 positions, the first difficulty can be overcome. To resolve the second, it is necessary to sensitize department chairmen and hiring committees (be they men or women) to the employment problem for women or to replace them by those who are sensitive.

Listings of applicants should include a vita and a description of the job sought (geographical limitations, etc.). Position listings should include as much information as possible: salary, experience required, type of duties, etc.

Publishers
Letters were sent to ten representative publishers inquiring about mathematics books by women authors, the number of women in management, and the number of women travelers. So far only Scott, Foresman, Holt, Rinehart and Winston, D.C. Heath and Charles E. Merrill have replied.

In general, about ten percent of lower level math books (calculus and below) have at least one woman author. D.C. Heath has three advanced books by women authors; the other responding publishers have none. AddisonWesley and Markham do, however, have advanced texts by women-in fact by AWM members. Without exception both editors and salesmen have urged that women prepare and submit manuscripts; they claim there is no discriminationall they seek is a good book. Holt, Rinehart and Winston says that 44 percent of their management level jobs are held by women (however, the math editor is a man and it is not clear how low management level goes). At D.C. Heath the college production editor is Martha Allen and the college

American Mathematical Society
The AMS committee on minority rights has not been responsive to inquiries and suggestions from the AWM．Prof．Raymond Ayoub of Penn State is the chairman．To urge the inclusion of more women on AMS committees，write Prof．Paul Halmos，Department of Mathematics， Indiana University，Bloomington，Indiana 47401。 Other members of the nominating committee，which Prof。Halmos chairs，are Charles Curtis， Richard Lashof，Raymond Redheffer and Elias Stein．Write to the AMS president

> Prof Nathan Jacobson
> Department of Mathematics
> Yale University
> New Haven, Conn. 06520
to urge the establishment of an AMS Committee on the Status of Women or to suggest resolutions which the Council might support．

Watch for signs at the summer meeting announcing a women＇s caucus． Programs for women

Prof．Ruth Afflack of California State College，Long Beach，is interested in，among other thing，special mathematics courses for women，viewing women as culturally disadvantaged in mathematics because of their conditioning．There is a workshop on programs for women at the Continuum Center，Oakland University，Rochester，Michigan， 48063，June 20－23；write for details to the Center．

Organize：
In addition to organizing as mathematicians，women can form．local faculty caucuses．Since many faculty are apathetic about elections to faculty senates，committees，etc。，it is fairly easy for a small group to be very influential．At The American University，there is now a woman as chairman of the university senate；there are also a woman member of the important university－wide committe which passes on promotions and tenure and women as chairmen and／or members of several other important committees．Work for representation on promotion and tenure，hiring，selection of dean，and budget committees，but try not to be the＂token＂woman．

PLEASE SEND SUGGESTIONS AND COMMENTS．
Sources of information

KNOW Inc．
726 Saint James Street
Pittsburgh，PA 15232
Women Today（biweekly newsletter）
1132 National Press Building
Washington，D．C． 20004
Women United（women＇s rights legislation）
P．O．Box 300
Washington，D．C． 20044
Women＇s Equity Action League
Women＇s City Club of Cleveland
Bulkley Bldg，Cleveland，Ohio 44115

The pamphlet＂Women as University Nigger＂ is particularly recommended．

Newark，N．J． 07102
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