

ASSOCIATION FOR WOMEN IN MATHEMATICS  
NEWSLETTER

Volume 7, Number 5

September-October 1977

PRESIDENT'S REPORT

The Structure of the AWM Council and AWM Executive Committee (cont'd)

AWM Council

As reported in the May-June 1977 Newsletter, the AWM Council has been formed. "The duties of a Council member will be to initiate and coordinate activity in specific areas and to periodically write reports to the Newsletter. Any AWM member who would like to be a member of the Council can do so by submitting a brief statement to be published in the Newsletter indicating her interest area. Council membership will then reflect current AWM interests and serve to identify AWM members active in these areas. The Executive Committee will then become part of the Council, and future Executive Committees will be selected from the Council."

At the present time the Council consists of:

Lenore Blum(President), Judy Green (Vice President), Judith Roitman (Vice President), Alice T. Schafer (Past President), Ann Leggett (Editor,Newsletter), Judy Wason (Treasurer), Mary W. Gray (Affirmative Action Officer), Evelyn Boorman, M.Susan Montgomery, Anne Stehney, H. Christine B. Stokes; Ruth Afflack, Bettye Anne Case, Jacqueline Dewar, Etta Falconer, Judith Jacobs, Harriet Kagiwada, Patricia Kenschaft, Judith Longyear, Bertha Mather, Jill Masirov, Teri Perl, Vera Pless, Sandra Pulver, Lucy Simon Rakov, Karen Rappaport, Martha Smith, Bhama Srinivasan, Marjorie Stein, Ruth Rebecca Struik, and Stephanie Troyer, and Linda Keen.

Statements of the new Council members are being printed in the Newsletters (starting in May-June, 1977 issue).

AWM Executive Committee

At the AWM Open Council Meeting on August 15, in Seattle, it was decided that the AWM Executive Committee shall consist of: President, Vice President, Past President, Editor of the Newsletter, Treasurer, Affirmative Action Officer and three Members-at-Large.

A Nominating Committee, consisting of Judy Roitman, Alice Schafer and Christine Stokes, was appointed to nominate 6 candidates from the Council to run for the positions of Members-at-Large of the Executive Committee. They have nominated: Bettye Anne Case, Patricia Kenschaft, Vera Pless, Martha Smith, Bhama Srinivasan, Marjorie Stein. The candidates' statements will appear elsewhere in the Newsletter. Ballots are on the last page. Please vote and return your ballots to the AWM office at Wellesley. The three Members-at-Large elected will officially assume their duties on the Executive Committee on July 1, 1978 ("unofficially" until then).

As reported in the May-June Newsletter, the new President will be selected from the current Vice-Presidents.

### AWM Summer Meeting in Seattle, August 1977

The main topic for discussion at the Open Council Meeting was the reorganization of the Council and Executive Committee (see above). In addition, there were reports from the new treasurer, Judy Wason, and from Alice Schafer about the status of our grant proposals. It was decided that a Small Grants Fund be formed for the purpose of supporting worthwhile, but not too costly, projects of AWM members. According to Judy, there may be some money in our treasury to start such a Fund. Individual and institutional contributions to the Fund are welcome (and are tax deductible). If you would like to be on the Committee that would both seek funds and help distribute the money, please contact Judy Wason (at Wellesley). Along these lines, Jill Mesirov offered to write letters inviting institutional membership to AWM.

Elizabeth Scott told about the AAUP Committee W salary kit (to decide if you are getting fair/equal salary and benefits) that is available for \$1.50 by writing: Committee on the Status of Women in the Profession AAUP, One Dupont Circle, Washington, D.C. 20016. Mary Gray suggested getting on Bernice Sandler's mailing list (by writing Dr. Bernice Sandler, Project on Women in Higher Education, Assn. of American Colleges, 1818 R St. NW, Washington, D.C.). Bettye Anne Case discussed the progress of the ERA and Jill Mesirov told a fascinating story of her experience at the New Jersey International Women's Year Conference.

The AWM panel was on "Alternatives to (Traditional) Academic Employment for Mathematicians". The impressive list of speakers were: Bettye Anne Case, Tallahassee Community College; Dorothy Gilford, National Academy of Sciences; Alan Goldman, National Bureau of Standards; Jill Mesirov, IDA; Peter Renz, W.H. Freeman & Co.; Ethel Rubin, U.S. Civil Service Commission; Marjorie Stein, U.S. Postal Service; Shmuel Winograd, IBM. I would like to thank the speakers for their excellent and informative presentations. Many people came by the AWM table afterwards to ask about possible publication of the talks. At the moment, the tapes of the session are being transcribed by Jane Kettendorf, the AWM secretary. We anticipate that an edited and revised version will appear in the next Newsletter.

Discussion of the panel continued at the AWM party directly afterwards. I would like to take this opportunity to thank Hope Daly, manager of the Meeting Arrangements, and her staff for arranging this party and for all their help in setting up our sessions, the panel, and the AWM table.

### Future Meetings

#### November, San Luis Obispo

Adelaide Harmon-Elliott has offered to assist in planning an AWM session in conjunction with the AMS-MAA meeting to be held at Cal Poly in November. If you will be attending this meeting and/or would like such a session, please get in touch with her at: Department of Mathematics, California Polytechnic State University, San Luis Obispo, California 93407.

#### January, Atlanta and August, Providence

Pat Kenschaft has agreed to be program chairperson for the Winter and Summer AWM meetings. For the Atlanta meeting, we tentatively plan to have a session on employment trends, a panel on black women mathematicians, as well as on Open Council meeting and party. Please get in touch with Pat if you would like to participate and/or have any suggestions.

August, Helsinki

The International Congress of Mathematicians will be held in Helsinki, Finland August 15-23, 1978. We would like to organize a meeting of women mathematicians there. Please let me or Pat know if you think this is a good idea and/or you have any suggestions.

Speakers' Bureau

We would like to update our Speakers' Bureau. Please let Stephanie Troyer, (Math Dept., University of Hartford, Hartford, Conn. 06117) know if you would like to join the Bureau or revise your earlier listings. She will need to know the topics on which you wish to speak and the audiences for which appropriate.

AMS ELECTIONS: CANDIDATES' ANSWERS TO QUESTIONS

This year the AWM and the Mathematics Action Group jointly sent a questionnaire to the candidates for President, Vice-President, and Members-at-Large of the Council of the American Mathematical Society. We sent the following questions:

The questions are:

1. What is your perception of the current position of women in the mathematics profession?
2. What is your perception of the current position of Blacks in the mathematics profession?
3. How do you connect the relationship of mathematics to society to the present employment situation in mathematics?
4. What is appropriate business for the A.M.S. Council?
5. What percentage of the Council meetings is it reasonable to expect Vice-Presidents and At-Large Council Members to attend?

Candidates

President: Peter Lax

Vice-President: Lee Lorch, Julia Robinson, John Wermer, George W. Whitehead

Members-at-Large of the Council: Earl Berkson, John Birman, Lenore Blum, James Donaldson, Clifford Earle, Murray Gerstenhaber, Daniel Gorenstein, Harold Grad, Ronald L. Graham, Blaine Lawson.

Replies of the candidates who answered follow. At the end of the candidates' responses there is listed names of those candidates supported by the AWM Executive Committee.

We wish to apologize to Harold Grad for not having sent him the questionnaire. At the time the questionnaires were mailed, we had not been notified that his name was on the list. So there is no answer from him. The fact that a candidate did not respond to our questionnaire should not be considered significant for with the time of year, the short period in which the candidates' names are known before the Newsletter is printed, it is possible that some candidates did not receive the questionnaire.

This year we did not send questionnaires to the candidates for the AMS Nominating Committee, as we had done last year, because we did not know the slate in time to do so. We hope that next year the slate will be in final form in time to allow us to contact all the candidates for the AMS offices.

Responses from the candidates for Vice-President

Lee Lorch

1. Very poor, both in the US and Canada, and worsening under present educational and scientific financial "restraints." The AMS should ask AWM immediately to submit suggestions, on a continuing basis, for AMS action to effectuate improvement. The AMS should ask its general membership also for advice on this (indeed on all matters). For starters, the AMS needs to be imaginative and vigorous in job development (in addition to its present job surveys), including cooperation with public and professional organizations to campaign for federal funds to provide quality education for all, particularly to assist and to draw into the best educational circumstances those victimized by the social structure: the poor, women, racial minorities, language and cultural groups. Affirmative action is required also to encourage female students, beginning in primary school, to develop confidence both in their own mathematical capabilities and in their visible opportunities for professional employment. Public education to this end, perhaps via the media, should also be utilized. The AMS should be more vigorous in bringing women forward; e.g., the only woman Colloquium Lecturer so far has been Anna Pell-Wheeler, 50 years ago, and there are clearly others now fully deserving of this recognition.

2. In need of enormous improvement. The answers to questions 1 and 3 apply here, even more pointedly. The AMS should ask the National Association of Mathematicians for advice, on a continuing basis, as to additional policies it should pursue. Black mathematicians should be brought forward in the AMS Council, which badly needs their guidance, by nomination for non-contested Council posts (President, Secretary, Associate Secretary, Treasurer, Editors, all are in this category -- no Black has ever been nominated for such posts, altho there are capable possibilities). In addition to the obvious positive steps which should be taken everywhere to encourage Black students and assist Black mathematicians, the AMS should be available, on rendering support for adequate funding to insure proper facilities, salaries, working conditions and student aid, etc. It must show also its genuine concern in all aspects of the problems faced by Black colleagues.

3. The present disastrous mathematical employment situation in the US and Canada arises primarily from the refusal of the various governments to provide adequate funds for education, particularly post-secondary education where most mathematical employment is found. Growing unemployment, notable among the youth, would suggest expansion of educational facilities. Genuine concern for the plight of the youth, the unemployed, the victims of poverty, racism, sex discrimination and other negative features of North American life, would lead to substantial increase of educational facilities (rather than to New York-type cutbacks), financed and administered so as to make possible the enrollment of the dispossessed now excluded -- and would eliminate the present mathematical unemployment. Contributing factors include the downgrading of scholarship and basic research in the list of national priorities, exemplified by widespread increases in teaching hours and class sizes, damaging to education as well. The governments plead economic difficulties in defense of "restraint" -- characteristic of the impact on social services of a growing economic crisis in which military expenditures remain sky-high. It underscores the public need to develop genuinely peaceful international relations and thereby create a world atmosphere in which armaments would be curtailed and funds redirected toward education, science, culture and other social services. It also bespeaks the need for strong efforts now to secure the necessary improvements in the mathematical situation.

4. Everything affecting the state of mathematics, including the welfare of mathematicians.

5. 100%, except for overriding personal emergencies. As a member-at-large of Council, I found it possible to attend all meetings during my three year term.

Julia Robinson

1 & 2. Obviously both women and blacks are drastically underrepresented. The principal reason is that they do not choose to study mathematics. The new creed of careers for all women and the availability of popular books on mathematics (beyond the high school level) should encourage interest in mathematics among girls and minorities. The representation of these groups has been further reduced by past discrimination in educational and job opportunities. I believe affirmative action programs have helped some.

3. Does mathematics do more for society or vice versa? I can't say.

4. This should be spelled out in the by-laws. I assume it would include matters dealing with the welfare of mathematics and mathematicians about which the Society could take some action.

5. I would make a serious effort to attend Council meetings.

John Wermer

The main purpose of the American Mathematical Society is to further mathematical research of high quality. In my opinion, the sex, race, religion of the individual doing the research should in no way be a criterion used by the A.M.S. The scientific merit of the work should be the sole criterion.

If a mathematician is being discriminated against, say by an employer, on grounds of sex, race or religion, the A.M.S. should consider the case and be ready to help if this is needed.

George W. Whitehead

I shall comment on your questionnaire as best I can in view of the fact that I find myself at a loss to understand certain of the questions. (This is far from a unique phenomenon; indeed, it is true of most of the questionnaires to which I have been exposed).

1 & 2. I cannot understand the use of the word "perception" in Questions 1 and 2. They would appear to ask for an expression of my personal opinion on two extremely complex and thorny issues. And while I have views (and strong ones) on these questions, nor am I shy about expressing them, I feel that it would be totally out of place to use them as a criterion of my fitness to hold high office in a professional society like the AMS.

3. This question I completely fail to understand.

4. I believe that Question 4 is covered by the statement which is included with the biographical data which I have sent to Professor Pitcher. A copy of this statement follows. 'It is the interest of the Society that its members be free to carry on their activities in research and teaching, and that they be able to make a living, if necessary, at these activities -- unhampered by considerations of race, sex and other irrelevant factors. It is proper for the Society to take action to protect these interests. Just where to draw the line is moot--I should favor a rather strict construction of the term "proper activity".'

5. This Question seems to convey a suggestion that certain elected members of the Council have been derelict in their duty of attending its meetings. I have no data with which to confirm or refute this suggestion. When I served on the Council in the past, I did not attend all meetings, but made an effort to attend all that I reasonably could. In view of the fact that the Society does not pay expenses for such attendance, I think this is all it is reasonable to expect. And I think it unwise, and even insulting, to impose a numerical quota.

Responses from the candidates for Members-at-large of the Council

Earl Berkson

1, 2, and 3. In my opinion, the answers to Questions 1, 2, and 3 are inseparable. The artificially low budget priority which society currently assigns to higher education has produced an economic and educational tragedy. Scholars are exploited and played off against each other; university administrations grow, while faculties shrink, faculty unemployment is widespread, and teaching loads increase; the new PhD's who are hired are formed into a migrant labor class by the disappearance of tenure-track positions; salaries and pension benefits are eroded by sub-inflationary raises; faculty prerogatives are reduced to "advisory" adjuncts of the administrative will; and society's tenuous attempts at equal employment opportunity get, at best, feeble lip service and scanty tokenism. Under these circumstances the position of women and members of minority groups is severely curtailed in the mathematics profession. The only hope of a solution to the ills plaguing academe is for scholars to unite in defense of higher education and its value to society rather than acquiescing in the exploitation of themselves and their colleagues.

4. Anything that affects the mathematical community.

5. At least 90%. Those who wish to seek changes for the better certainly cannot afford absenteeism.

Joan S. Birman

1. Improving, but still a long way to go. My personal impression is that the general atmosphere within the profession has improved considerably over the last, say, 30 years. There is a much wider and more comfortable acceptance of women who choose mathematics as a profession, by both their male and female colleagues, and this makes it easier for women to use their energies to work. Of course these changes have had the largest impact on the younger generation of professional mathematicians. Moreover, social barriers have not been eliminated. It is not clear that a significant change has yet occurred in the sense of a sizeable number of women making major advances in front line research or being recognized accordingly within the power structure.

2. It is my impression that there has been and continues to be a very very small number of Black professional mathematicians and also very few Black students who take a serious interest in mathematics. Therefore I cannot answer the question, since my experience relates only to isolated exceptional individuals.

3. The present employment situation appears to be largely a problem resulting from a contracting population within the University student body and a diminution of government support for industrial and academic mathematics. I'm not sure what is meant by the "relationship of mathematics to society" in this context. I regard mathematics as part of our human heritage, essentially as art, and as such feel it deserves support quite apart from immediate applications.

4. Since I have not had any experience in working on the AMS Council, I cannot at this moment say what is appropriate business. I would do my best to reach thoughtful decisions.

5. It would be my assumption that in accepting a nomination one accepts the responsibility to attend and participate in most business meetings.

Lenore Blum

1. In terms of academic jobs: While it may be easier for women to secure first or temporary jobs, the situation in case of second jobs and promotion is no better (and perhaps worse) than ever. This is based on careful examination of AMS employment data which shows that, in most categories, the percentage of women has gone down during the past 4-5 years.

In terms of non-academic jobs: Ironically, I believe that during the present academic employment crisis, women have an edge here: Because women have not been part of the established academic community, we have always had to seek alternative employment possibilities, and so have viewed non-academic employment as a viable and respectable alternative. Furthermore, in contrast to the situation in academia (where, for example, no money has ever been withheld for non-compliance with affirmative action), pressure has been put on government and industry to comply with affirmative action legislation.

In terms of participation in the profession: During the past 5 years I have seen a marked increase in the numbers of women attending professional meetings, giving talks, publishing papers, serving on committees and in elected positions.

2. I do not have as much knowledge of the current position of Black mathematicians. My perception is that it is similar to that of women but more extreme, in particular, with regard to the unemployment situation.

3. The mathematical community's response to the current employment crisis can critically effect the future of mathematics in the U.S. The specter of large numbers of talented and highly educated young mathematicians without meaningful employment can only have a demoralizing effect on the community and will certainly steer many gifted young students to other (equally challenging) fields.

For its own well being, the mathematical community must take a responsible and active role in dealing with this situation. This should entail broadening the view of what mathematics is, and also of what is respectable and valuable for mathematicians to do. In particular, the officers of the AMS could use their prestige to:

- encourage leaders of business, industry and government to employ mathematicians
- discourage the exploitive and disruptive practice of short term employment of mathematicians in academia
- help change attitudes in university math departments about non-academic employment
- gather and disseminate information about alternative employment possibilities
- encourage math departments to work on interdisciplinary programs (and, in particular, encourage math students to also become proficient in some mathematically related field, e.g. in the sciences, engineering or social sciences)
- encourage math departments to increase the enrollment of women and minority students.

The benefits to the mathematical community in terms of new job opportunities, new stimulus for mathematical research, plus a healthier interaction with other sectors of society are obvious.

4. Issues which effect the well being of the profession, including the above.

5. If travel reimbursement is available then, at the very least, attendance at the major meetings.

James A. Donaldson

Mathematics, a discipline central to Science and Society, has been enriched by contributions from every group. It is unfortunate that existing conditions in our Society tend to discourage full participation in the profession by members of minority groups, and of women, despite a slight relative increase in their numbers. The current position in mathematics of women, of African Americans, Mexican Americans, Native Americans, and members of other minority groups is nothing for which the profession can be proud.

The employment situation in Mathematics is part of the larger unemployment problem. Unemployment figures in America have reached crisis proportions and no longer can one depend upon the private sector to create sufficient jobs to have a beneficial effect on the employment situation. The public sector must be persuaded to play a greater role in solving this problem, and professional organizations ought to share their views on this matter with the appropriate leaders of the public sector.

In addition to transacting ordinary business, the AMS Council should be responsive to the membership, and should insure that matters affecting mathematicians adversely are given a thoughtful and thorough hearing.

Upon accepting the nomination for Vice President or At-Large Council Member, each nominee accepts implicitly the responsibility of attending all Council meetings. If elected, I plan to attend every meeting of the Council.

Clifford J. Earle

Let me try to respond to the first three questions together. There are not enough Blacks or women who are faculty members in college or university mathematics departments, graduate students in mathematics, or students in undergraduate mathematics courses. The number of Blacks and women on our faculties can be increased somewhat by affirmative efforts in hiring, but major change will depend on increasing the number of mathematically trained Blacks and women. The first step is to get more Blacks and women to take freshman calculus, a subject that must be learned not only by professional mathematicians but by people who want to enter many important professions.

The main business of the AMS, and therefore, of its Council, is to promote mathematical research. This is done primarily through publishing the AMS journals and scheduling regular meetings and summer institutes. Since mathematical research is done by people, the AMS should also try to protect the wellbeing of mathematicians both here and in other countries.

Since the AMS Council meets only three times a year, I believe members should get to all meetings.

Murry Gerstenhaber

1. Women are exploited at the lowest levels, rare at the highest levels, judged by inappropriate criteria at all levels, and are discouraged at the earliest ages from seeking mathematics as a profession; half of the country's mathematical talent is thereby wasted.

2. Talented young Blacks who survive ruinous elementary educations probably prefer careers which they perceive as economically or socially more rewarding than mathematics. That perception, more than discrimination—which continues to be real—must account for the extreme scarcity of Black mathematicians.



3. If every company that has hired an econometrician were to consider a mathematician equally necessary, then colleges would be hard pressed to meet the demand. The use of mathematicians will, however, have to be urged by themselves, since society views mathematics as a luxury, while those who advise for profit prefer complexity to simple truth.

4. The proper business of the AMS Council is everything that concerns both mathematics and mathematicians, including the promotion of research, promulgation of standards of responsibility, and protection of rights.

5. All.

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AWM EXECUTIVE COMMITTEE ENDORSEMENTS FOR THE AMS ELECTIONS

The AWM Executive Committee endorses the following candidates for the upcoming AMS elections.

AMS Vice President: Lee Lorch, Julia Robinson

AMS Council: Earl Berkson, Joan Birman, Lenore Blum, James Donaldson, Murry Gerstenhaber

If you are a member of the AMS we urge you to vote for these people, and ask that you encourage your friends to do so.

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SPECIAL ENDORSEMENT FOR LEE LORCH

by Mary Gray, Member, Executive Committee  
First president of AWM

I want to urge members and friends of AWM to vote for Lee Lorch for AMS vice-president in the upcoming election. Lee has been a member of AWM from its beginning, but even before that he worked untiringly for equal opportunity for everyone. Through the years Lee has been involved, at great sacrifice to himself, in the civil rights struggle; he has been an effective leader and a warm friend to minorities, to women, and to all those who need a helping hand.

Lee has served with me on the Council of the AMS. His term as Council member has expired, and the Council desperately needs him back as an articulate and well-informed spokesperson on the issues important to AWM. Since Judy Green and I are leaving the Council as of January 1978, it is very important that AWM help elect Lee so that those still on the Council who share our concerns will have some support.

Lee is a marvelous person and a great asset to AWM. We need him as AMS vice-president.

OTHER ELECTIONS

The final ballot for the MAA elections should be mailed by November 15. Everyone is urged to vote in this election, as in all elections. In the past a small percentage of the membership of the MAA has actually voted. YOUR VOTE COUNTS.

The Committee for Section A (Mathematics) of the AAAS will soon elect a secretary to replace Truman A. Botts, who is not a candidate for reelection. The candidates are: Geraldine Coon, Leonard Gillman, and Ronald L. Graham. We hope to be able to report on the outcome of this election in the next Newsletter.

STATEMENTS OF CANDIDATES FOR AWM EXECUTIVE COMMITTEE

Name: Bettye Anne Case  
Address: 2405 Idyllic Terrace  
Tallahassee, FL 32303

Institutional Affiliation: Tallahassee Community College  
Position: Professor

Statement: If a member of the AWM Executive Committee, I will attempt to productively represent all concerns brought to me and to seek out those of community college teachers/mathematicians in industry, two-mathematician marriages, and feminist mathematicians.

AWM activities aimed at making mathematics as a career more accessible to women (specific programs, Speakers' Bureau,...) must be stepped up (despite the poor job prognosis) or else the number of women mathematicians as role models will not even hold constant. Increased participation in AWM by a broader base of its membership is important. AWM Council members should be sure there is always an AWM meeting in conjunction with each regional AMS/MAA meeting. (At such a session which I organized, I first encountered the phrase "automatic dissection"; friends have adopted it, and one, a lawyer, tells me she used it effectively in a title 9 case she won the other day.)

I wish to see AWM involvement in social and political processes which directly affect AWM aims, and I encourage individual members to become involved in the political processes which directly affect AWM aims, and I encourage individual members to become involved in the political process of both local/state/national governments and also of the AMS, MAA, IMS, NCTM, SIAM; etc... as appropriate.

My first AWM meeting (Dallas '73), just after I moved from teaching upper division and graduate courses to the community college level, was helpful in general and encouraged me to retain visibility as a woman mathematician. I felt then that this organization had a unique opportunity to encourage and assist those completing PhD's around 1970 who were too early for affirmative action and were caught in revolving doors by the job crunch. Today, those mathematicians have mostly settled into jobs once called "underemployment", and they have been joined by more recent graduates. While I am glad to see AWM move in directions of interest and aid to them, it must not be at the expense of neglecting the critically important role of encouraging and helping in every possible way those women seeking to obtain/retain tenured positions at research oriented universities.

Name: Pat Kenschaft  
Address: 56 Gordonhurst Ave.,  
Upper Montclair, N.J. 07043  
Institutional Affiliation: Montclair State College  
Position: Professor

Statement: I received my Ph.D. in 1973 from the University of Pennsylvania with a specialty in functional analysis, specifically  $C^*$ -algebras. Since that time I have been teaching at Montclair State College in New Jersey, a school whose highest granted degree is the M.A. Thus there will be no opportunity for me to teach functional analysis, and I have been busily studying the many applications of mathematics to non-technical fields. By this coming winter I will have published three texts catering to non-mathematics majors and showing how calculus, linear mathematics, and probability are used in the "real world."

Another new research field of mine has been the lives of women mathematicians; in particular I have investigated the life of Charlotte A. Scott, vice president of the A.M.S. in 1906.

I feel that the primary purpose of the AWM is to enable women and friendly men to help each other in their individual mathematical lives. For example, my department, two thirds of whose majors are women, had never had a woman guest speaker until I suggested a particular woman this spring. Because of the AWM I have been able to arrange tentatively for several more women to speak in the MSC math department. This provides tangible appreciation for these women and a new source of good speakers for my students. I have sensed no resistance from my male colleagues; they simply had not known before where to go for female speakers.

Similarly, members of AWM can help each other find jobs and settle into new communities. Through special programs, through the newsletter, and through our very existence, we can help each other to expand our careers and we can support each other while evolving the many new life-styles that are possible for highly educated women. I am eager to become increasingly active in the AWM so that I can help with programs promoting these goals.

Name: Vera Pless  
Address: Dept. of Mathematics  
University of Illinois at Chicago Circle  
Chicago, Ill 60680  
Institutional Affiliation: University of Illinois at Chicago Circle  
Position: Professor of Mathematics and Computer Science  
Statement: I was one of the founders and president for many years of W.I.S.E. (Women in Science and Engineering) which published a book entitled "Goals for Women in Science", 1972.

During the past year, I have spoken about "Women in Mathematics" at various colleges and a regional Mathematics Society Meeting. I spoke at the AWM panel at the Winter, 1976 San Antonio Mathematical Society Meeting.

Awards: Marcus O'Day (1969) - Best research paper in Air Force Labs. Patricia Kayes Glass Award (1971) - Best paper by a woman in Air Force Labs.

Name: Martha K. Smith  
Address: Dept. of Mathematics  
University of Texas  
Austin, Texas 78712

Institutional Affiliation: University of Texas

Position: Associate Professor

Statement: Ph.D.: University of Chicago, 1970

Field of Research: ring theory

Previous positions: Rice University, Washington University

Other professional service: AMS Committee on Employment and Educational Policy, Panel to select NSF Graduate Fellowship recipients.

Particular interests in AWM: (1) Continuing the tradition of excellent programs at Joint Mathematics Meetings. These programs have been a service to the entire mathematical community as well as a means of emphasizing and encouraging women's active participation in mathematics. (2) Extending efforts to encourage women to study mathematics and to enter mathematical careers.

Name: Bhama Srinivasan  
Address: Dept. of Mathematics  
Clark University  
Worcester, MA 01610

Institutional Affiliation: Clark University

Position: Associate Professor

Statement: I have been a member of AWM almost since it was started and have been active in the Boston area group. I think AWM has come a long way in ensuring a fair deal for women at a junior level, especially for recent Ph.D's; I would like the same to be done for senior women so that we have more women in positions of power and influence. We also have more women on AMS committees now than ever before. I would like to work towards continuing this trend and also towards getting more women to be editors and referees for journals, etc. I would also like to encourage women mathematicians to be more visible, e.g. by writing survey articles for journals. This could be done not only by women doing research in Pure Mathematics but also by women in other areas. It would also be good to organize more local meetings of AWM, perhaps in conjunction with every meeting of AMS, so that mathematicians all over the country become aware of our aims and goals and problems.

Interest: Research in representations of finite groups; publications include "The characters of the symplectic group  $Sp(4, q)$ ", Trans. American Math. Soc. (1968), "Isometries in groups of Lie type", J. Algebra (1972), "Green polynomials of finite classical groups", to appear in Communications in Algebra.

Name: Marjorie L. Stein  
Address: Finance Group, USPS  
Washington, C.C. 20260  
Institutional Affiliation: U.S. Postal Service  
Position: Management Analyst/Program Manager

Statement: Thank you for nominating me to serve on the AWM Executive Committee. If elected, I shall be presenting the viewpoint of the non-traditionally employed mathematician, a constituency that is frequently under- or unrepresented. As a Governor-at-Large of the MAA for 1977-80, I shall have opportunities to present your views and mine to a wide audience at both winter and summer Joint Meetings. I am interested in promoting the preparation of students for non-traditional careers in mathematics, the education of faculty to the requirements of these non-traditional roles and the encouragement of women to develop their potential.

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A ballot for your use in voting for one of the above candidates  
is at the end of this Newsletter

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DEADLINE FOR VOTING in the AWM election is DECEMBER 12, 1977.

AWM Council

The following is the second group of members of the newly formed AWM Council.

Name: Jacqueline M. Dewar  
Address: 6511 Firebrand  
Los Angeles, CA 90045  
Area Representing: Career Counselling;  
Teacher Education;  
Southern California  
'Network'

Institutional Affiliation: Loyola Marymount University  
Position: Assistant Professor of Mathematics

Statement: I helped to organize and participated in a panel discussion entitled "Mathematics and Sex" on math anxiety and avoidance at the Spring '77 meeting of the Southern California Section of the MAA and submitted a report to the local MAA newsletter. As a result a "network" is being formed in the Southern California area for the purpose of communication, publicity, or assistance in sponsoring activities related to women and mathematics.

I am particularly concerned about the problem of inadequate career counselling at the high school and early college level. With the help of friends and former women students I have begun holding informal sessions for LMU women math majors to discuss possible job opportunities and to provide encouragement to continue the study of mathematics.

Recently I have had some experience with the math course for elementary teachers and I see a great need in this area for fostering a more positive attitude toward mathematics.

Name: Linda Keen  
Address: CUNY Grad Center  
33 W 42-St.  
New York City, N.Y. 10036  
Area Representing: New York

Affiliation: Lehman College, Grad Center CUNY

Position: Professor

Statement: I have been a member of AWM since its early days and feel that it plays an important role for women mathematicians, as well as for the mathematical community as a whole. I have been both an organizer and active participant in the educational activities of AWM and would continue in this role as a member of the council.

Name: Judith Q. Longyear  
Address: Department of Mathematics  
Wayne State University  
Detroit, MI 48202  
Area Representing: Midwest

Affiliation: Wayne State University

Position: Associate Professor

Statement: I believe that those of us who are well established professionally must not relax, but must fight even harder than before. We must recruit young mathematicians to help us fight for more representation in the AMS & SIAM, for more jobs at better universities, and for more of the "travel grant" types of awards and fellowships. Since it is professionally harder and more dangerous for the young to do this fighting, we who are already well set should form the vanguard.

Name: Vera Pless  
Address: 1700 E. 56th St., Apt. 1708  
Chicago, Ill. 60637  
Area Representing: Midwest

Affiliation: University of Illinois at Chicago Circle

Position: Professor

Statement: I am pleased to join the activities of the AWM Council on behalf of women in mathematics.

Name: Sandra M. Pulver  
Address: Pace University  
Department of Mathematics  
New York, N.Y. 1003

Area Representing: New York City,  
New York

Affiliation: Pace University

Position: Assistant Professor

Statement: I would like to help the AWM in any way possible, along with other AWM members in the area.

Name: Lucy Simon Rakov  
Address: 11 Grayson Lane  
Newton, Massachusetts 02162

Area Representing: High School  
Mathematics  
Teachers

Affiliation: Newton North High School

Position: Teacher of Mathematics

Statement: I am anxious that AWM broaden its membership, in order to ensure its continued growth, by addressing the needs of women teaching high school mathematics. Such a goal may be achieved by encouraging secondary school instructors to join AWM, thereby strengthening their feelings about themselves as mathematicians and as a result causing them to be more effective in encouraging the young women in their classes to pursue the study of mathematics. The latter will encourage more women to enter the field and, perhaps just as important, increase and maximize their career options.

I have been a member of AWM since its inception and have had a varied mathematics-related career: as a research programmer-mathematician in industry, as co-author of a programming text, as a junior college lecturer and as a high school teacher. I am currently completing a Master's Degree in mathematics and teaching. I am a member of AWM, MAA, NCTM and NOW.

Name: Martha Smith  
Address: Department of Mathematics  
University of Texas  
Austin, Texas 78712

Area Representing: Southwest

Affiliation: University of Texas

Position: Associate Professor

Statement: I would like to increase my involvement in AWM by becoming a member of the AWM Council. I am particularly interested in efforts to present a positive image of mathematics and careers involving mathematics to high school age girls. AWM has already begun to serve as a clearinghouse for information on programs with this goal. I hope we can take an even more active role by developing model programs, seeking funding for them, involving ourselves more in teacher training, and working with other women's professional organizations (such as the Society for Women Engineers) and with organizations for high school age girls (Girl Scouts, etc.).

Name: Stephanie F. Troyer  
Address: 95 Willington Hill Road  
Storrs, Connecticut, 06106

Area Representing: North-East

Affiliation: University of Hartford

Position: Assistant Professor (tenured)

Statement: I have been involved with AWM for about five years, arranging some of the NE Regional meetings, working on establishing the Speakers' Bureau, and participating in an occasional panel. AWM seems to me an extremely important forum and a valuable vehicle for information, and I would be pleased indeed to serve on the Council.

Name: Ruth Rebekka Struik  
Address: Department of Mathematics  
University of Colorado  
Boulder, Colorado 80309

Area Representing: Colorado

Affiliation: University of Colorado  
Position: Associate Professor

Statement: I would like to get some AWM activities going in Colorado. In particular, I am trying to increase the number of women on the AWM Speakers' Bureau from this part of the country. I would also like to see more women speakers at regional MAA meetings.

FROM THE TREASURER

Judith C. Wason

For the fiscal year ending May 31, 1977, the treasurer's report prepared by Ann Stehney, shows receipts of \$8098 against expenses of \$7161, with a bank balance of \$3532, and membership of 1139.

This is the time of year for dues. If you have not yet renewed your membership, please do so, and also encourage colleagues and your institution to join. It should be noted that postage for 65 newsletters to non-U.S. destinations costs more than twice as much as that for the U.S. While the executive committee does not wish to impose a special fee, any contributions toward mailing expenses would be appreciated.

DEADLINE CHANGE

Job ad deadlines remain: December 15, March 1, May 15, July 15. Copy deadlines are now: December 8, February 21, May 8, July 8. We need the extra week since the editor is in Texas and the office is in Massachusetts.



INTERNATIONAL WOMEN'S YEAR CONFERENCES

by Jill P. Mesirov, Princeton, N.J.

Throughout this summer, International Women's Year Conferences will be held in every state. Many have already taken place. The purpose of these conferences, which are funded by the U.S. Congress, is to elect delegates to and form the agenda of a National Meeting in November of 1977. The charge of the National Meeting is to prepare a Report, which will be forwarded to President Carter and the Congress for their "responsible action".

I attended the New Jersey State Conference this June. While the quality of the various workshops and discussions was spotty, the experience as a whole was worthwhile, and I would urge that all who can (male and female) participate in their State.

The State committees have been asked to be sure that participation comes from all age, ethnic, religious, racial, and economic groups. They have also been asked to insure representation of all sides of vital issues, especially reproductive freedom and the E.R.A.

One last observation - while there were workshops on Women in the Media, Politics, Business and Finance, the Arts, Unions, and the Humanities, there was no workshop dealing with nor any mention of Women in the Sciences. Something to think about, no?

by Bettye Anne Case, Tallahassee, FL.

At the Seattle meeting, Jill Mesirov described some of her experiences at the N.J. State International Women's Conference--anti-ERA women with blue and white ribbons and police whistles. I was told of the Utah-license Winnebagos rolling in to Ellenburg, Wash., with their "anti" voters. There were stories from Mississippi of hunting licenses purchased the day before used by women as I.D.'s for voter credentials. In Fla. the "antis" (who, incidentally, were instructed, I am told by a Mormon feminist friend, to vote "anti" to everything that pro-ERA people were for) wore tiny embroidered oranges. (No., Anita wasn't there.) As a counter-psychological move, we distributed black armbands to pro-ERA women as the "Alice Paul Brigade," the meeting coming a couple of days after her death.

The following from the (usually very conservative) Pensacola Journal, Mon. July 18, 1977, describes the factors with implications far beyond IWY meetings which most frightened and shocked me:

"ORLANDO--On the first night of the Florida Women's Conference he stood as doorkeeper at a conservative women's group's hospitality room on the top floor of the Orlando hotel.

"'I'm just checking to see who comes in,' said George Higgins, Jr. 'This is a private party.'

"The next day and the day after he was visible at convention sessions mingling among the anti-feminists, made up largely of Mormon and Catholic women and members of Right to Life and Stop-ERA groups.

"Higgins, 29, carries a calling card identifying him as Grand Dragon of the Realm of Mississippi, United Klans of America, Inc., Knights of the Ku Klux Klan. ...

"On the back of the card, a slogan reads, 'The only reason you are white today is because your ancestors practiced and believed in segregation Yesterday.' ...

"A scattering of members of other right-wing groups, including the John Birch Society and the American Nazi Party, were among the anti-feminist forces, Higgins said, but he had no contact with them."

POSSIBLE AWM ACTIVITIES

by Pat Kenschaft

Some suggestions for future AWM activities were given at the recent meeting in Seattle. Lee Lorch of York University, Ontario, said he had been invited to speak about mathematics on Canadian radio. His talk received such an enthusiastic response that he subsequently did a series of programs about math and mathematicians, including some women mathematicians. He suggested that individuals in the U.S. might be able to reach their own communities via radio and/or TV and agreed to advise anyone seriously interested in presenting such a program.

Another discussion involved naming American women mathematicians whose lives would make interesting Newsletter articles. Annabelle Wheeler (an AMS colloquium lecturer in the '20's), Pauline Sperry and Anna Cartan were mentioned. Anyone who is interested in writing such an article, please get in touch with Anne Leggett, Dept. of Math, Univ. of Texas, Austin, TX 78712.

Everyone was reminded to support pro-ERA activities. If your state has already passed the ERA amendment, consider adopting a state (e.g., Florida) and contributing to the efforts there.

SPELMAN CONDUCTS WOMEN IN SCIENCE CAREERS WORKSHOP

Spelman College News Release, Atlanta, Georgia

Atlanta, GA--November 9--Spelman College conducted a Women in Science Career Workshop on October 30 for junior and senior college women majoring in engineering or one of the biological, physical, mathematical, or social sciences. The purpose of the workshop was to motivate young women of high potential to pursue graduate study in science. The workshop was funded by the National Science Foundation through the Women in Science Program.

Three panels were presented at the workshop: "Opportunities for Women in Science--The Employment Picture of the 80's", "Graduate School Admission and Student Support," and "Life in Graduate School." In the afternoon, participants attended group sessions on Graduate Training for Preparation for Careers in biology, chemistry, computer science, mathematics and statistics, economics, engineering, physics, political science, psychology, and sociology.

Outstanding women scientists and specialists joined Spelman faculty and staff members in conducting the workshop. The outside consultants were: Dr. Herschelle Challenor, Staff Consultant, Subcommittee on International Resources, Food and Energy; Dr. Madelyn Chennault, Fort Valley State College; Mrs. Christine Darden, NASA; Mrs. Patricia Goldberg, IBM; Dr. Helen Grenga, Georgia Institute of Technology; Dr. Eleanor Jones, Norfolk State College; Dr. Barbara Kehrner, Mathematical Policy Research; Dr. Shirley Jackson, Bell Laboratories; Dr. Lida Mattman, Wayne State University; Dr. Lena Myers, Jackson State College; Dr. Jane Neese, CDC; Mr. Pat Nielsen, Bureau of Labor Statistics; Dr. Jessie Price, Duck Research Laboratory; and Dr. Charlotte Rentz, Educational Testing Service.

One hundred and thirty-six students from seventeen Georgia colleges and universities attended the workshop. Dr. Etta Falconer, Chairman, Division of Natural Sciences, served as Program Director.

THE LADIES' DIARY....1704-1816

by Teri Perl

The Ladies' Diary was a women's magazine published in England from 1704 to 1841, devoted in large part to problems and puzzles in mathematics. That such a subject should have been considered a source of entertainment for women seems a great surprise, probably since this idea is so much at variance with present stereotypes about women's interests.

Cynthia White, in her recent book, Women's Magazines, 1693-1968, attributes the beginning of magazines for women in eighteenth century England to economic changes which resulted in the simplification of domestic chores and a new leisure for upper and middle class women. These conditions created a readership, she writes, "made up of new recruits from the commercial classes as well as substantial numbers of domestic servants whose conditions of work gave them both facilities for reading and access to reading matter."

The original plan for the Ladies' Diary was different from the form it was finally to take. John Tipper who edited the diary from its beginning until his death in 1713, stated his original intentions ... to provide something for all conditions of women. For Ladies, there would be information concerning essences, perfumes, and unquents, for Waiting-women and Servants, 'excellent directions in cooking, pastry and confectionary'; for Mothers, 'instructions for the advancement of their families', and for Virgins, 'directions for love and marriage'. Thus, the content of these early issues was a varied collection of items ... sketches of famous women, stories, articles on health and education, enigmas and mathematical questions. By 1707 however, Tipper decided to revise his formula, in response, he claimed, to a multitude of letters. Enigmas and mathematical questions 'give the greatest satisfaction and delight to the obliging Fair', he wrote. And so enigmas and mathematical problems were to become the main focus of the Ladies' Diary.

The Ladies' Diary and Almanack as it was called, was small ... only about ten by sixteen centimeters in size. As the name suggests, the first part of the magazine was an almanac. In this section appeared dates of major holidays, days and hours of the appearance of new and full moon, dates of extreme weather conditions the previous year, and other items of interest. The early issue also contained advertisements for books, prosthetic devices, artificial teeth, etc.

A quick count of the list of contributors to the 1739 diary showed about sixteen percent of them to have been women. This figure includes only those names prefixed Miss or Mrs. Some names had no prefixes at all, and some were merely initials. The contributors who used initials may easily have been women. Most of the contributions by women seem to have been to the enigmas sections rather than the mathematical ones.

In a certain sense the magazine could not be said to have been trying for the highest level of mathematical involvement, since the first editors set the condition that all contributions were to be in rhyme. Although this restriction seems to have become less stringent as time passed, the rhyme format contributed a certain charm to the magazine as long as it was used.

Many problems included in the math section required algebraic solutions. Many of these were solutions to diophantine equations. Others involved geometric and trigonometric concepts and proofs. Solutions to many problems required the methods of the calculus, or fluxions as they were usually called there. Since the magazine was published only once a year, solutions to problems presented one year were included in the issue of the following year.

The following is an example of a popular type of problem which appeared in the Diary. It is the first of fifteen new questions proposed in the 1795 issue of the Ladies' Diary. The 'proposer' was a woman ... Miss Nancy Mason of Clapham. It is in the traditional rhyme format.

Dear Ladies fair, I pray declare,  
In Dia's page next year,  
When first it was I'gan to pass  
My time upon this sphere

My age so clear, the first o'th year,  
In year, in months, and days.  
With ease you'll find, by what's subjoin'd  
Exact the same, displays.

$$\left. \begin{aligned} xy + z &= 238 \\ xz + y &= 158 \\ x + y + z &= 39 \end{aligned} \right\}$$

Where x = the years, y = the months, and z = the days of my age, the 1st of January, 1795.

The next example is a more sophisticated problem. Proposed by a J.B.S., in the 1738 issue, two solutions appeared in the 1739 edition, one by a Mr. Ri. Dunthorne and the other by the proposer, J.B.S. Tycho.

Ques. 203 A Ball of Lead hanging from the Top of a Hall by a String, drawn over a Pulley, which is 20 Foot long between the Center of the Ball and Pulley, is set a swinging: The Moment it begins to swing, a Person, holding the other End of the String, begins to pull it, and draws up the Ball, and continues so to do, at an uniform Ratio of 5 Feet in a Minute, until he has pulled the Ball quite up to the Pulley. Query, How many Oscillations will the Ball make before it reach the Top?

Ans. by Mr. Ri. Dunthorne: Let a = 20 Feet; b = 4 Min.\* c = Number of Vibrations, which the Pendul. whose Length is a, makes in Time b; and e = to a small Particle of Time. Then  $b:c::e:ce/b$  = Num. of Vibra. which the Pendul. a makes in the b time e; and  $b:a::e:ae/b$  = Portion of the String drawn up on the Time e; then will  $a - ae/b$  = Length of the Pend. after the first Time e;  $a - 2ae/b$  = after the 2<sup>d</sup> Time e, +c. And  $a - ae/b; ccee/bb - c$  =  $\square$  of the Num. of Vibrat. in the 2<sup>d</sup> Time e, Consequently its Square Root = Num. Vibrat. in 2<sup>d</sup>, e. In like manner  $ce/\sqrt{b} \cdot \sqrt{b-2e}$  = Num. Vibrat. 3<sup>d</sup> Time e.  $ce/\sqrt{b} \cdot \sqrt{b-3e}$  = No in 4th, +c. Whence 'tis manifest that the Num. of Vibrat. in the several Times e, as above, are a Series of Fractions, whose Numerators are Equal, and their Denominators are Square Roots, whose sides are single Powers, decrease in Arithmetic Progression, from b, and  $b/e$  = the Number of Terms. So that by the Arithmetick of Infinites  $c/2 = 2c$ , will be the Sum of all the Terms in the Series. But  $c = 97$ , whence  $2c = 194$ , the Number of Vibrations requir'd.

Another ans. by Proposer: J.B.S. Tycho: I observe, that the Answer results to this, vis. To find the Length of a Pendulum, which remaining invariable, shall make the same Number of Vibrations in a given Time, as one does, which is continually lengthening or shortening, in some given Ratio. This I find to be 56,25 Inches nearly; wherefore the Num. of Vibrat. before the Ball reach the Pulley will be about 200. Note, the Ball is suppos'd to be a Point and the String a Mathematical Line, and the Oscillations performed in similar Arcs.

Merones says, the Ball will make 194 Oscillations, being twice the Number, which a Pendulum of the whole Length of 20 Feet wou'd have made in the same Time.

Mr. Tho. Bird Answers 194,49 Vibrations.

\*Ed: The Diary actually reads b=20 Min. We believe this must be a printing error.

The solutions included above demonstrate familiarity with problem solving techniques which are different from those generally used today. Such problems would most probably be solved now using the methods of the calculus.

The Ladies' Diary, in the form that it ultimately took, raises some interesting questions for us here. Its format with its special emphasis on mathematics seems surprising since mathematics was not generally thought to have been a proper pastime for women in England at that time. Who then were the women who contributed to it? Who actually read the diary? How large was its readership? It was doubtless a small group, but how small? In all, the diary would seem a fascinating source of information about a surprising relationship of women to mathematics in the eighteenth century. It would be interesting to know if any AWM reader has additional information about the Ladies' Diary.

See "The Ladies' Diary...Circa 1700" by Teri Perl in the Mathematics Teacher, April 1977.

#### WOMEN SCIENTISTS NEEDED

The National Science Foundation (NSF) is planning to support a program to encourage high school girls to consider careers in science and technology. Women scientists (including mathematicians, engineers, social scientists, biologists, chemists, physicists, etc.) are needed to visit high schools and talk about career opportunities in science for women. Each woman scientist will be expected to spend 3-5 days visiting several schools in a given geographical area. Expenses and an honorarium will be provided. For more information contact Carol Place, Visiting Women Scientists Program, Research Triangle Institute, P.O. Box 12194, Research Triangle Park, N.D. 27709 (toll free 800-334-9571 or collect 919-541-6319).

#### REMINDER

The deadline for inclusion in the NOTICES of information about AWM meetings to be held at AMS meetings is always quite early and must be sent to the appropriate regional secretary. It is, however, excellent free advertising and our only way to get any mention of AWM into the NOTICES.

#### REGIONAL MEETINGS

AWM sessions are being planned for the October 22nd meeting at Wellesley, Massachusetts, and for the November 11-12 meeting at Memphis, Tennessee.

#### PHOTO REQUEST

One wall of the math department hallway at Wayne State University is covered with pictures of famous women. Prof. Judith Q. Longyear would like to paper another wall with photos of female mathematicians - famous or not - for hundreds of young people to see each year. Please send her (at Dept. of Math., Wayne State University, Detroit, MI 48202) a photo with a small card attached giving name, area, and any other information you care to.

### WOMEN HONORED

Martha J. Siegel of Towson State College has been awarded an NSF Science Faculty Professional Development Award and will be affiliated with Johns Hopkins University during the tenure of her grant. 119 such awards were made, 20 of them being given in the mathematical sciences. They are intended to provide opportunities for science faculty members to undertake activities that will enhance their effectiveness as science teachers through affiliation with either academic or non-academic organizations.

Shirley A. Hill, mathematics professor at the University of Missouri at Kansas City, is the new president-elect of the NCTM (National Council of Teachers of Mathematics).

Julia Robinson was not only the first woman mathematician elected to the NAS, but also the first unemployed one.

### OF POSSIBLE INTEREST

Women & Men: The Consequences of Power, a paperback collection of essays, may be ordered by sending a check or money order for \$4.50 along with name and address to Office of Women's Studies, 1116 Crosley Tower #164, University of Cincinnati, Cincinnati, OH 45221. The table of contents looks good - sections are I. The Power of Men, II. Restraints on Women's Power: in Literature, III. Restraints on Women's Power: in Society, IV. Confrontation and Change, and V. New Kinds of Power.

Thought I'd mention the AWIS (Assn. for Women in Science) Newsletter again. Did you know that American Indians suffer from math anxiety? The latest issue has a case study on sexism in the guise of acceptance in the professional scientific world. Write to AWIS, Suite 1122, 1345 Connecticut Ave., N.W., Washington, D.C. 20036.

A WEAL survey of institutions of higher education in Michigan indicates unsatisfactory progress in forming and implementing equal employment opportunity and affirmative action programs. Carol B. Grossman (chairperson, committee on affirmative action, WEAL, Michigan division) and Jerrold W. Grossman (asst. prof., dept. of math. sciences, Oakland Univ., Rochester, MI 48063) have written a report on this survey.

Black Careers Magazine, mentioned in a recent issue for its value to black high school students and their counsellors, is designed primarily to meet the needs of the college students and the professionals who seek opportunity and advancement in industry, commerce, and government. Write P.O. Box 8214, Philadelphia, PA 19101.

Athena Theodore, Professor of Sociology at Simmons College in Boston, is gathering information for a book she is writing on discrimination against women in academic life. She would be grateful if as many members of AWM as possible would write to her detailing cases of discrimination against them as women in academe. She says that in her study no individual's identity will be revealed nor will information be revealed that will allow any person to be identified. Anyone interested in contacting Athena Theodore should write to her at 27 Turning Mill Road, Lexington, MA. 02173.

President, Boise State University Anyone interested in being a candidate for the President of Boise State University should write to John W. Swartley, Math Dept. Chairman, Presidential Search Committee, Room 105, Science Education Building, 1910 University Drive, Boise, ID 83725.

#### MAA ELECTIONS

Dorothy Bernstein is a candidate for the presidency. Deborah Haimo is a candidate for vice-president.

#### SCIENCE CAREER FACILITATION PROJECT

The NSF is supporting an educational program at the University of Texas at Arlington to facilitate the re-entry of women into professional scientific work. Women who received college degrees in science or mathematics from 2 to 15 years ago and who are not employed or are underemployed are eligible to apply. The program will begin in January of 1978 and continue through August 1978. For information call (817)-273-2805 or write Science Career Facilitation Project, Ann Benham & D.L. Chesnut, Co-directors, Dean of Science Office, The University of Texas at Arlington, Arlington, TX 76019. Applications (including copy of college transcript) are due October 25, 1977.

#### LETTER TO THE EDITOR

by Norton Starr, Dept. of Math., Amherst College

I taught introductory probability and statistics last Spring and am doing so again this Fall, and I've encountered a very attractive auxiliary text that is marred by outrageously sexist cartoons. The book in question is Stephen K. Campbell's *Flaws and Fallacies in Statistical Thinking*, Prentice-Hall, 1974. I was inclined to make it a required book for the course, but the cartoons were so awful I decided to have the library stock a few copies, to be available on reserve. I write to seek your support in persuading Prentice-Hall to issue a laundered version of the work.

Last January at the St. Louis AMS-MAA meetings, I complained to the Prentice-Hall representatives about this book. I was told that others had complained and a revision was in the works. I recently inquired to see if the revised version would be available for use this Spring. The Mathematics Editor, Harry Gaines, wrote me on October 5 to state: "I'm sorry to say that we have a relatively large stock of the Campbell book on hand. We won't have a reprint eliminating the objectionable cartoons for another year."\*

Upon receiving the letter quoted from above, I phoned the author to complain. He was sympathetic and informative. Apparently Prentice-Hall drew up the cartoons at the last minute. Campbell does accept responsibility for having passed on what Prentice-Hall drew, because he did pass on them before production. He has since received many criticisms of this aspect of the book. He has sent in suggestions for changes on a number of the cartoons, and had been under the impression that a laundered version would be out sooner than now appears to be the case.

It looks as though the only way to get action in this matter will be to make Prentice-Hall uncomfortable. A colleague has suggested that letters of complaint be addressed to the board of directors of the company. I list their names and company address below. (I hope the source I consulted was accurate: it appeared to be a year old.) Alice Schafer recalled an instance where someone wrote an offending publisher and asked to be removed from its mailing list. If enough people did that, in this case it might save a tree and slightly diminish P-H sales.

Any support or ideas you can offer would be appreciated. Before complaining, you might want to look at the book itself. Try the wife-swapping example on page 32 or the mean, median and modal bust line cartoon on page 70. It is hard to believe the book was published in 1974.

Directors: Howard M. Warrington, Chairman of the Board; Frank J. Dunnigan, President; George L. Costello, Exec. Vice-President; Leo N. Albert, Paul R. Andrews, Ralph F. Anthony, Mortimer M. Caplin, Wallace A. Matheson, Donald A. Schaefer, Prentice-Hall, Inc. Englewood Cliffs, New Jersey, 07632

\*Editor's note: The author of this letter telephoned to say that he has made another telephone call to Prentice-Hall and has learned that there are no present plans for revising this text now or in the near future. The only comment was that if the mail about the book gets too heavy, Prentice-Hall might relent.

## JOBS

The vacancies listed below appear in alphabetical order in an alphabetical listing of states. EO/AA means Equal Opportunity, Affirmative Action Employer.

University of Alabama, Birmingham, Chairperson, Dept of Math, at rank of asso. or full professor, starting Sept. 1978. Applications and nominations invited of experienced research mathematicians with commitment to effective teaching and adm. skills to head urban university dept with 19 full-time faculty. 12month appointment. Salary \$28,000-35,000. Good fringe benefits. Applications should be received by Nov. 15. Send to R.J. Crittenden, Search Comm for Math Chair. University of Alabama in Birmingham, University Station, Birmingham, Alabama 35294. AA/EO

University of California, Berkeley, Dept of Statistics, has two positions open for the Fall of 1978. (1) Asst. Prof to teach grad and under grad courses in statistics, continue vigorous prog of interesting research. Novel contributions to applied statistics or statistical computing especially values. (2) Asso or full Prof., must have record of distinguished scholarship with outstanding contributions to the theory and applications of statistics. Send vitae before Jan 31, 1978 to Prof Peter J. Bickel, Chairman, Dept. of Statistics, Univ. of California, Berkeley, CA 94720. AA/EO

University of California, Berkeley, Dept of Math. Asst. Professorship, with preference given to the field of partial differential equations. Strong record in teaching and research required. Deadline Dec. 31, 1977. Send resume, reprints, preprints and/or thesis abstract. Have 3 letters of recommendation sent to E. Thomas, Vice Chairperson for Faculty Appts. The University of California, Berkeley, CA 94720. AA/EO



University of California, Berkeley, Dept of Math. Several 2-yr lecturer positions beg. Sept. 1978 for new (1978) and recent Ph.D's, regardless of age. Send resume, reprints preprints and/or thesis abstract. Have 3 letters of recommendation sent to E. Thomas, Vice Chairperson for Faculty Appts. The University of California, Berkeley, CA 94720. AA/EO

University of California Santa Barbara, Outstanding research mathematician with extensive experience in graduate ed. Any math area will be considered. Salary and rank depends on qualifications. Candidates should apply to Charles A. Akemann, Chairman, Math Dept. University of California, Santa Barbara, CA 93106, (805) 961-3515, not later than Jan. 31, 1978. AA/EO

University of California Santa Barbara Anticipate one-yr postdoctoral lectureships with possibility of renewal for a second year beg. Fall 1978. Salary about \$14,000 for academic year. Send vita and 4 letters of reference to: "Lecturer Committee" no later than Feb. 15, 1978, Dept of Math., University of California, Santa Barbara, CA 93106

University of California Santa Barbara, Temporary positions as Lecturers and/or Research Associates are anticipated beg. Fall 1978, in Computational Complexity, Formal Languages, Semantics and Verification Systems, Numerical Analysis, Programming Languages, and other areas of Computer Science. A. Ph.D. degree with potential for excellence in research and teaching are required. Candidates should send vita and names of at least three references to Computer Science Comm., Dept of Math, University of California, Santa Barbara, CA 93106, by Feb. 15, 1978. AA/EO

California State Polytechnic University, Pomona, President. Must have achieved academic excellence, demonstrated successful adm. skills and leadership, preferable in an organization of higher education. Ph.D preferred. Send resumes before Nov. 1, 1977 to Dr. Marjorie Downing Wagner, Vice Chancellor, Faculty & Staff Affairs, The California State University & Colleges, 400 Golden Shore, Long Beach, CA 90802. Salary \$41,208-54,900. AA/EO

San Diego State University, two faculty positions (1) business policy, (2) business and environment. Full-time tenure-track, salary competitive range from \$15,624 to \$27,348, commencing Fall 1978. Must have Ph.D or D.B.A. completed prior to Fall 1978. Apply to William R. Sherrard, Chairman, Dept of Management, School of Business, San Diego State University, San Diego, CA 92182. AA/EO

San Diego State University, Info. Systems Dept., Professor/Chairperson. Ph.D required in an appropriate business discipline, teaching experience and accomplishments in information systems, recent consulting and/or work experience in data processing and information systems, record of administration. Salary \$21,576-26,052 10-month year. Tenure-track position. Send complete vitae before Nov. 30, '77 to Dr. William E. Spaulding, Chairman, Search Committee, Information Systems Dept. School of Business Admin., San Diego State University, San Diego, CA 92182. AA/EO

University of Connecticut Southeastern Branch, Groton, Math, Asst. Prof., beg. Sept 1, 1978. Duties include teaching 12 cr hrs of lower division math and statistics. Undergrad. counselling required. Occasional committee work is expected. Ph.D. and good background in statistics required. Send resume and three letters of recommendation before Jan. 1, 1978 to John V. Ryff, Head, Dept of Math., University of Connecticut, Storrs, Ct. 06268. Reappointments are made on a yearly basis. Branches of the Univ. of Conn. are two year institutions. AA/EO

University of Connecticut, Dept of Math, Asst or Asso Prof., beg. Sept. 1, 1978. Position renewable on yearly basis with comprehensive review during 3rd yr. Duties include teaching two math courses at undergrad or grad level each semester. Counselling and some committee work expected. Ph.D. required with documented research record showing strong promise of continued activity in numerical analysis. Send resume and three letters of recommendation before Feb. 1, 1978 to John V. Ryff, Head, Dept of Math., University of Connecticut, Storrs, Ct. 06268. AA/EO

University of Connecticut, Stamford Branch, Math, Asst. Prof. Possibly two positions expected to begin Sept. 1, 1978. Duties include teaching 12 cr hrs of lower division math. Undergrad counselling is required. Occasional committee work expected. Ph.D. in math required. Three letters of recommendation and resume should be on file before Jan 1, 1978 and sent to John V. Ryff, Head, Dept of Math, University of Conn., Storrs, Ct. 06268. Reappointments are made on yearly basis. Branches of the Univ. of Conn. are two year institutions. AA/EO

University of Connecticut, Math, Numerical Analyst. Asst. or Asso Prof., beg. Sept. 1, 1978. Position renewable on a yearly basis with a review conducted during the 3rd yr. Duties include teaching two math courses at the undergrad or grad level each semester. Counselling and some committee work expected. Ph.D. in math with documented research record showing strong promise of continued scholarly activity in numerical analysis. Three letters of recommendation and resume should be sent before Feb. 1, 1978 to John V. Ryff, Head, Dept of Math., University of Connecticut, Storrs, Ct. 06268 AA/EO

University of Connecticut, Special Year in Algebra, 1978-79. Full and half-time visiting positions available at all ranks. Duties include teaching two math courses at the grad or undergrad. level each semester (half-time visitors would teach one). Mathematicians whose current research concentration is in algebra are invited to write. Completed resumes and references letters should be on file before Feb. 1, 1978. Send to: John V. Ryff, Head, Dept of Math, University of Connecticut, Storrs, Ct. 06268. AA/EO

University of Hartford, Math-Physics Dept. faculty position beginning January, 1978. Ph.D. required. Knowledge of computer science necessary. Send resume to Dr. Cecilia Welna, Chairman, Dept. of Math. and Physics, University of Hartford, West Hartford, CT 06117.

University of Louisville, Louisville, Ky., Dean of the College of Arts & Sciences. Must have Ph.D or equivalent, substantive accomplishments in research or creative activity, teaching experience at the undergraduate and graduate level, administrative experience in a comprehensive university. Send letter of interest and curriculum vitae including names of at least three professional references to Prof. W. Wiley Williams, Chairman, Dean of Arts and Sciences Search Committee, University of Louisville, Louisville, Ky 40208. AA/OE

M.I.T. Math Dept. C.L.E. Moore Instructorships in Math are open to postdoctoral mathematicians who show definite promise in research. Teaching loads are 6 hrs.p.w. one semester, 3 hrs. p.w. the other. Appointments are for one year, renewable for one additional year. The academic year salary will be at least \$15,500. Applications should be filed not later than Dec. 30, 1977. Referees should return reference forms direct to M.I.T. by Jan. 13, 1978. For further info. write to Pure Mathematics Comm, Room 2-263. AA/EO

M.I.T. Math Dept. One or two assistant professors in pure mathematics will be appointed if sufficiently strong candidates can be found. The criteria are (i) superior ability as a research mathematician, (ii) demonstrated effectiveness as a teacher, (iii) two years or more of postdoctoral experience. AA/EO

M.I.T. Math Dept. A limited number of postdoctoral instructorships are available in the field of Applied Mathematics. Appointments will be made on the basis of superior research potential, for a period not exceeding two years. Applications are considered and final decisions announced on or before March 15, 1978. For further info write to Committee on Applied Math, Room 2-345. AA/EO

University of Lowell, Mass., Asst. Prof of Math. Openings in computer science for Fall '77 or January '78 are anticipated. Ph.D. required plus strong commitment to research and teaching. Send resume, transcript and three letters of reference to Alan W. Doerr, Department of Math, University of Lowell, Lowell, MA 01854. AA/EO

Michigan Technological University, Asst. Professorships in Applied Statistics, Applied Math. and Computer Science available for 1978-79. Ph.D. required. Exciting, growing programs. Good fringes and competitive salaries. Apply to Zane Motteler, Head, Math Dept., Michigan Technological University, Houghton, MI 49931. AA/EO

University of Nevada, Dean, College of Arts and Letters, beg. summer of 1978. Terminal degree and adm. experience in higher ed. required. Candidates should also have an outstanding record in teaching and research in order to be eligible for a senior professional appointment in one of the college depts. Apply to Vice President for Academic Affairs, Univ. of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154. Applications will be accepted up to Feb. 1, 1978. AA/EO

University of Pennsylvania, Math Dept., Junior Positions. A limited number of teaching positions in algebra and analysis are available; may possibly have openings in other fields. Ph.D. in math required at the time of appointment. Start July 1, 1978. Application and all supporting info must be received by January 15, 1978. Send resume and 3 letters of reference to Prof. F. Warner, Chairman Personnel Committee, Dept of Math, University of Pennsylvania, Philadelphia, PA 19104/E1. AA/EO

Rhode Island Dept. of Education, seeks President of R.I. Jr. College and R.I. Jr. College State System. Opening Feb. 1, 1978. Ph.D. or equivalent required, plus teaching and adm. experience at the college or university level and ability to relate to the community. Forward nominations to Mr. Albert E. Caroletti, Chairman, Board of Regents for Ed., 199 Promenade St., Providence, R.I. 02908. AA/EO

Marquette University, two openings, assistant prof level, start 1/16/78 or 8/28/78, one in computer science - computational mathematics area, one in statistics. Research potential important. Normal teaching load 9 hrs. Contact W.E. Lawrence, Dept. of Math and Statistics, Marquette University, Milwaukee, WI 53233. AA/EO

University of Texas at Austin, Dept of Math., Asst. Prof., one or two tenure-track positions available Fall, 1978. Applicants must have outstanding record of research and interest in teaching. Two or three years post-doctoral experience preferred. Instructor: Two or three of these positions available Fall, 1978; all are 2-3 year terminal. Applicants should show strong promise in research and interest in teaching. Prefer recent Ph.D's with research interest in an area where department is strong. Apply Screening Committee, University of Texas at Austin, Dept of Math., Austin TX 78712.

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Sept.-Oct. 1977