

FILE

ASSOCIATION FOR WOMEN IN MATHEMATICS

NEWSLETTER

Volume 5, number 7

November - December 1975

REMINDER: Dues for the period October 1, 1975 to September 30, 1976 were payable October 1. This is the LAST Newsletter you will receive until your dues are paid.

COMMITTEE W OF AAUP

For many years the American Association of University Professors has been thought of as the more or less successful defender of academic freedom and tenure. When someone has been dismissed for vociferously championing an unpopular cause, the AAUP is still the place to turn. While many think that the AAUP is concerned only with the maintenance of the tenure system, in whose establishment it has played the essential role, the Association has always held that the untenured are also entitled to academic freedom.

Back in the 1920's the AAUP had a Committee on the Status of Women in the Profession; however, it was disbanded and not reestablished until 1970. I have chaired the committee since 1973. The Committee has been active in the traditional AAUP area of establishing policies which have gained widespread acceptance by colleges and universities; it has issued statements condemning anti-nepotism regulations, establishing practices for leaves of absence for child-bearing, child-rearing and family emergencies, and promulgating standards for senior appointments with reduced loads. While they are available separately, these documents are in the "red book" of AAUP policies, obtainable from the national office for \$1.50; this book has the fundamental statements on tenure, faculty and student rights and responsibilities, institutional governance, etc. Of particular interest are the Recommended Institutional Regulations, which are the guidelines for faculty personnel and related policies throughout the nation's colleges and universities.

One of the Recommended Institutional Regulations covers retrenchment in situations of financial exigency. This has just been provisionally revised and the version which has been authorized for publication for comment and which will probably be presented to next spring's annual meeting for approval, contains a recognition that affirmative action obligations must be taken into account when deciding whom to release. This represents a welcome deviation from the "last hired, first fired" policies which have always had an adverse impact on women in times of financial difficulties.

Committee W has also monitored legislation and proposed legislation, as well as federal agency regulations, affecting academic women. Certain provisions of Title IX, affirmative action and equal monthly retirement benefits for women and men have been among the issues on which we have presented testimony before Congressional and agency hearings. We have met with the Secretary of HEW, members of Congress and members of the White House staff and have written, and caused others to write, many letters on these issues. Our contacts even extended to members of Her Majesty's Government in efforts to get Rhodes fellowships opened to women (it looks as if they will be for 1976).

A project of which we are very proud is the gathering of data on women's salaries as part of the annual AAUP compensation survey for the first time this past year. If you do not know what the differential in men's and women's salaries is at your institution, check the Summer 1975 AAUP Bulletin. A careful analysis of such differentials is possible through a kit being prepared under an Exxon grant.

As a result of pressure from Committee W and other sources within AAUP, the organization has taken the position that complaints alleging discrimination should be handled in the same way as alleged violations of academic freedom. This means, in particular, that if a probationary appointment is not renewed and the faculty member can present prima facie evidence of discrimination, she or he is entitled to a hearing before a faculty committee at which the burden of proof is on the institution to show that the nonrenewal was not due to discrimination. Of course, there are problems in effectuating this relatively new AAUP policy. Committee W is working with Committee A (Academic Freedom and Tenure) to improve the handling of such cases, to set guidelines for establishing discrimination, etc. However, Committee A is under instruction from the 1975 AAUP Annual Meeting to seek out cases of discrimination and take vigorous action to secure redress--with censure of an institution as the ultimate sanction. One might think that being censured is not much of a deterrent to institutions since the current job market assures them that they will not lack applicants for faculty positions. This seems not to be the case, judging by the reactions of institutions in recent censure or potential cases; most institutions still value their reputation in this area.

If you have been "non-renewed" and believe that discrimination is involved, marshal your facts and contact your chapter and/or national AAUP for help.

Committee W, in conjunction with Committees A and Z (Economic Status of the Profession), is currently working on a comprehensive policy statement on parttime faculty--covering tenure, voice in governance, compensation, etc. We should appreciate your help in this area.

We are also continuing our work on economic issues, in particular on retirement benefits. This is an extremely complex issue, on which we have developed a lot of expertise. Various position papers and information are available if you are interested.

Affirmative action as a concept is under broad attack. We are seeking ways to maintain what little has been gained; in particular, we are trying to see that the requirement of goals and timetables for institutions is not removed from affirmative action regulations, a move which would gut the whole program.

Many AAUP chapters and state conferences have Committees W, with whom we try to work on issues at those levels. For example, we hope to get the AAUP involved in ERA campaigns in the states which have not yet ratified the amendment.

Committee W is considering new projects in the areas of tax and Social Security laws as they affect women. Again, we should appreciate any input you would like to make.

To get policy documents, copies of testimony, and informational material, contact the national AAUP at One Dupont Circle, Washington, DC 20036 (202-466-8050). Carol Polowy, Associate Counsel and Associate Secretary, is the staff person responsible for Committee W support. For general comments or suggestions, contact

Mary Gray
American University

THE FORMER JOB REGISTER AND WHY WE CHANGED IT

Last year, I sent letters to both the women and the institutions that used the AWM Job Register that was run by the Philadelphia AWM for the past two years. The letters were sent to those who used the Register during the 1973-74 academic year.

None of the women who replied to my letter had received more than a form rejection from the institutions they had written to as a result of using the Register. None had any interviews.

Two of the departments I wrote to had hired women, although not through the Job

Register. No departments using the Register hired women through it.

I would like to point out that the AWM Job Register that we ran in Philadelphia was an operation that was separate from the jobs listings in the AWM Newsletter. The new AWM Job Register will operate in conjunction with the Newsletter.

If you, or anyone you know, obtains a job by using either the Newsletter or Job Register, please let me know. I would also like to know if you write to an institution and receive no reply, or have any other reason to be suspicious of the ad. My address is:

Harriet M. Lord
C. P. 9751
Ste. Foy, P.Q.
Canada.

I also wrote to women who received their Ph.D.'s in 1973-74 and were employed in 1974-75. I wrote to about 80 women, and received 17 replies. One of those who responded had received tenure before she got her Ph.D. Seven others had tenure-track positions. The other women had either one or two-year terminal contracts. Thus, they will be entering the job market either this year or next.

As a footnote, I would like to point out a few of the results of the AMS Survey on Size of Faculty for four-year colleges and universities. The total number of positions for faculty without doctorates decreased by about 6% for both men and women. The number of tenured positions for women decreased by 4%. The number of tenured positions decreased by 2%.

As for positions for faculty with doctorates, the total increase was about 3%. For women, it was 4%. As for tenured positions with doctorates, the total increase was 6%. For women with doctorates, the increase in tenured positions was 0.0%. (All percentages are based on comparison with the figures for 1974-75. See Oct. NOTICES of AMS, 1975, p. 307.)

Harriet Lord

Ed. Note: The ineffectiveness of the Job Register in its old format was certainly not due to those who ran it. We thank Harriet and all others involved for the long careful hours they put into it.

AMS CANDIDATES ANSWER OUR QUESTIONS

The following reply to our questionnaire of AMS candidates was, through no fault of the author's, received too late to put in our last Newsletter. See that Newsletter for the questions we asked.

CANDIDATE FOR COUNCIL

J. LAMBEK: 1. I have given some thought to the employment problem and feel the following steps should be taken:

A number of research institutes should be set up where young people are paid for doing mathematics as long as they haven't found a teaching position. Such institutes exist in Eastern Europe. Junior colleges should be encouraged to hire more Ph.D.'s.

2. I am of course against any form of discrimination. Hiring should be done on a merit basis. To hire some one because he belongs to a minority group seems to me to be a reverse form of discrimination, but perhaps I could be persuaded that such a practice is justified. Having been concerned mostly with Canadian problems in the past, I know nothing about the Mostert committee.

3. While the AMS should be mainly concerned with mathematics and problems arising from the employment of mathematicians, I do believe that there are political issues where one has to stand up and be counted. Whether such action should be taken in any particular case ought to be determined in a democratic fashion.

4. I have not thought about this question.

P.S. I may add the following comment to question 2. I thoroughly disapprove of the common practice to turn down a woman applicant for a position because she is married to someone already on the staff.

LETTER FROM HENRYKA MASLOWSKI, CAL. STATE POLYTECHNIC U.

At Cal. Poly. we had the following skirmish in the war against sexism. A certain male instructor was being evaluated for tenure. He was known as a "super teacher", enthusiastically praised by his students, admired by the faculty, but guilty of sexism in a rather serious way. In his office was hanging a Playboy calendar, showing a grossly distorted nude female body. In order to liven up his tests, he gives such questions as "Find the mean and standard deviation of the bust sizes of Cal. Poly. coeds" and "_____ 's Dating Service: There are 3 blonds at \$4.00 an hour, 4 brunettes at \$3.50"

I brought these facts up at the meeting discussing his tenure. I did not argue that he should be denied tenure, merely that his committee or the department chairman should say a few words to him. The department responded with tittering. A few of the males supported my position, but most claim that I exaggerate the importance of such things, that I am not "sophisticated", and that I am trying to bring on a new Victorianism. One colleague said (I quote), "The department has room for a few women, a few sexists." Another: "He's just trying to make his test questions more interesting." When I mentioned that probably the majority of women students don't find contemplation of bust sizes particularly interesting, a male feminist among us pointed out, in none too delicate language, that a comparable question about the male anatomy would be considered vulgar. There was a sudden hush, and I think the point was made.

No official position was taken at the meeting, though the picture has been taken down. It is troubling that the matter was treated as a joke and that the reports of the meeting, which have been spread orally to those who were not there, centered only on the picture, so as to give me a reputation as a crusader against dirty pictures. However, a few men have said to me in private that it was wise to bring up the issue. Talking about it in a meeting seemed to me appropriate, since I had spoken to the person a few years ago about one of his exam questions. His answer: He is part Polish, so he can't put Polish jokes on his exams. He has continued to put sexist questions on his exams.

It is a strain for us to have to put up a fight about such minor and self-evident matters. But we have to make sexist behavior less and less socially acceptable.

REPORT ON TERMAN SYMPOSIUM
BY MARY GRAY

Several sessions of the Lewis M. Terman Memorial Symposium on Intellectual Talent were of special interest to women in mathematics. Julian C. Stanley, Director of the Study of Mathematically Precocious Youth at Johns Hopkins, reported on the first four years of the program which identifies and develops mathematical talent. The major technique of development is radical acceleration (1 to 6 years) of the gifted. Lynn Fox, Project Coordinator of the Intellectually Gifted Child Study Group, told of the observed sex differences in the mathematically precocious groups--which can be summarized by saying that there were very few girls at all and none among those most radically accelerated. The early work by the Hopkins groups is described in Mathematical Talent: Discovery, Description, and Development, Julian C. Stanley, Daniel P. Kearing, and Lynn H. Fox (Eds), Johns Hopkins University Press, 1974.

Professor Fox has observed that the girls were extremely unwilling

to skip grades, in spite of their relative social and physical maturity. They appeared, on the whole, to be fearful of peer rejection and of trying something new, and their self-expectation was not correlated with their performance. A special summer algebra class of girls, taught by a woman, with outside speakers on careers using math resulted in 1/2 of the girls being accelerated, but only by one year. This compares with 16% of a control group of girls, equally gifted but with no special classes and counselling only by mail. In general, in the various special classes the girls tended to stay in the program at a much higher rate when they had a woman teacher and all girls or a substantial number of girls in the class. The boys did well in all-boy classes with a female teacher, but not so well if they were in a class with a substantial number of girls. However, it seems clear that there are enormous differences in motivation and in particular great difficulty in convincing girls to be accelerated.

Professor Fox suggested that acceleration of gifted girls needs to be done by early admission to school or by skipping grades in elementary school before socialization has had such an effect. However, the problem of nurturing mathematical talent at a very early age has not really been addressed.

Another session featured a panel of the mathematically precocious youth. It was interesting to me that, from what I could tell from the discussion, no more than 2 or 3 of the 12 boys (one was only 6 years old and it was difficult to evaluate his interest) and 1 of the 4 girls are mathematical prodigies in the sense that most mathematicians think of--really devoted to mathematics as an art. The others were interested in it as a tool; one is an 18 year old finishing a PhD in computer science, one a 16 year old junior in EE, one in physics, one a 10 year old who does not really like math, he says, but it is the only thing it is easy to get advanced courses in (he is now on 3rd semester calculus), several others interested in computers. I stress that this is based only on what they said (and some spoke very little).

Professor Pauline Sears of Stanford spoke on "Careers and Life Satisfaction Among Terman's Gifted Women." I do not want to discuss her study extensively, but I was interested to observe that two of the best predictors of the satisfaction of these women at age 62 was that they liked arithmetic very much at age 12 and were given a superior rating in it by their teachers. Any conjectures?

NEW ENGLAND MEETING

New England AWM met at the Cambridge AMS meeting on October 25. Chairing the meeting was Stephanie Troyer of the University of Hartford. After a brief report on the AWM meeting at Kalamazoo, we split into two discussion groups of about 10 to 15 people apiece.

One group decided to try and arrange an AWM meeting at the November MAA meeting in Cambridge, Mass. Issues we felt it was important for the AWM to act on were: parity for part-time workers; and whether teacher's unions were doing enough for their women members. Questions of personal concern included the problem of image and reinforcing the existing hierarchy (by saying she's a professor a woman lets her students know that women can get degrees from graduate school, but also tacitly supports the distinction between professor and non-professor as meaningful). We discussed the related question of what special messages we try to get across to our women students, and how we do it; the question of what roles women fall into in their non-teaching duties; and the related question of how we can help women get power in our institutions. We wondered what the pressures are on a woman mathematician employed in a non-academic environment, but none of us knew. Men participated in this group in a sensitive, concerned manner.

The other group discussed problems of research and employment. We talked about whether we

view ourselves as competing with men, and how we feel (jealous?) towards other women mathematicians. We talked about the difficulties of husbands and wives having jobs in different cities and were counselled to "have patience - things will work out." We discussed the desirability of AWM continuing its concern with problems of women as graduate students and researchers, even after it enlarges its membership to include our sisters in industry, in teacher training, in the high schools, and in community colleges.

Finally, both groups came together and compared what we had discussed separately.

Martha Jaffe
Judy Roitman

SPEAKERS BUREAU

The July-August and September-October issues of this Newsletter carried a list of AWM members who have joined AWM's Speakers Bureau. An addition to that list is given below. Any member wishing to join the Speakers Bureau should write to the Editors, AWM Newsletter, c/o Mathematics Department, Wellesley College, Wellesley, MA 02181, giving name, topics and audiences for which suitable.

Institutions, industries and organizations wishing to invite any of the speakers listed with the AWM Speakers Bureau should contact the individual speaker directly. Anyone desiring a list of speakers registered with the Speakers Bureau should write to the Editors at the address given above.

Addition:

Speaker

Ruth Afflack
Department of Mathematics
California State University
Long Beach, CA 90840

Topic

1. "Patterns for Progress" (development of logical thinking and understanding of mathematics through patterns).
2. Math Labs: creative ideas for teaching mathematics using games and puzzles.
3. Math Ideas for Teachers (a weekend mini-course, including demonstrations and workshops)

Audiences

elementary and secondary school teachers; prospective teachers

OF POSSIBLE INTEREST

Both the Carnegie and Sloan foundations have money to support projects oriented towards women. This year, the Wellesley math department received a grant from Sloan to develop a course for women who are afraid of mathematics. Local foundations also have money for things like this. Lenore Blum of Mills College used a grant from the San Francisco Foundation to begin a comprehensive program at Mills, and is continuing it with partial help from IBM. Similar projects we know about include one for junior high students (write to Lynn Fox at Johns Hopkins University) and one for elementary school students (write to Diane Resek, San Francisco State University) or Nancy Kreinberg, Lawrence Hall of Science, Berkeley, California). Nancy is writing something for our next Newsletter, and is willing to act as a clearinghouse for information about funding and projects of this sort.

Ann Moskol, Rhode Island College in Providence, has collected demographic data on women in mathematics. She's organized this into five pages of charts and statistics, useful for everything from arguing with department chairpeople to preparing a talk for undergraduates. If you would like a copy, you can write to her care of the math department there.

The Sigma Delta Epsilon Fellowship - a \$750 grant in aid - is being offered by Graduate Women in Science. Applications must be received by February 1, 1976 and can be obtained from Dr. Sandra R. Grabowski, Department of Biological Sciences, Purdue University, West Lafayette, Indiana 47907.

The faculty women's forum at the University of Oregon, Eugene, Oregon, is actively soliciting names of women to submit to the committee searching for a new vice-president. If you

can think of any women who might be interested, send their names to Mary Beth Ruskai at the math department there.

The Yale Department of Statistics has sent a letter, written by a woman student, to at least 13 women's colleges in order to recruit more women students. It is quite an impressive letter. If your school is non-sexist enough to make it possible for a woman in your department to honestly write such a letter, you might want to try it as a means of increasing women's enrollment. If your school has tried such strategies, let us know whether they were effective.

A conference on the Black Woman and the Bicentennial will be held at Arizona State University in Tempe, Arizona. If you're interested, you can write to Pat Washington, Dept. of Secondary Education.

Martha Jaffe is active in a suit for back pay, equal promotion rates, etc. at Boston State College. They need money. You can send it to her at Boston State College, 640 Huntington Ave., Boston, Mass. Checks should be made out to Legal Defense Fund, Women Faculty of Boston State College. JR

JOBS

The vacancies listed below appear in alphabetical order in an alphabetical listing of states, followed by Canadian listings.

U. of Alabama. Department of Mathematics, Assist. Prof., minimum salary \$15,000 plus \$5,000 possible for summer teaching. Ph.D. and research potential required. Send resume to: Dr. Arthur C. Segal, Chairman, Dept. of Mathematics, Univ. of Alabama in Birmingham, University Station, AL 35294.

University of Arkansas. Mathematics and Computer Science. Ph.D. required. Position open January 1976. Background, interest and experience in Operations Research with ability to program in at least one language. Twelve hours a week teaching load with six weeks summer teaching usually available. Salary and rank negotiable. Contact: Dr. John Hodges, Chairman, Department of Mathematics and Computer Science, University of Arkansas at Little Rock, Little Rock, AR 72204.

University of California, Berkeley. Probably several 2-year lecturer post-doctoral positions starting July 1, 1976. Send resume, reprints, preprints and/or thesis abstract and three letters of recommendation. Contact Vice Chairperson for Personnel, Dept. of Mathematics, University of California, Berkeley, CA 94720.

California State University, Sacramento. Dean, School of Engineering. Beginning Sept. 1, 1976. Ph.D. or equivalent in Engineering or closely related discipline. Salary: \$27,492 - \$33,420, five step range for 12 months service, with 21 days vacation. Application deadline: Dec. 19, 1975. Send application and credentials to: E. James Archer, Vice President for Academic Affairs, California State University, Sacramento, 6000 J Street, Sacramento, CA 95819.

San Francisco State University. Position open in Dept. of Mathematics effective February 1, 1976. Assist in development of advanced undergraduate Computer Science curriculum and teach some elementary mathematics. 12 hr. load. Ph.D. in Computer Science or equivalent and some teaching experience necessary. Industry software experience desirable. Salary & level dependent on qualifications. Address applications to: Dr. James T. Smith, Chairman, Math. Dept., San Francisco State University, San Francisco, CA 94132.

The University of Santa Clara, Dept. of Mathematics, two openings at assistant professor level, fall, 1976. Specializations: (1) applied mathematics/probability and statistics, (2) applied mathematics/computer science. Undergraduate teaching (8-12 hrs/wk.) and research. Ph.D. in mathematics required. Contact: G. L. Alexanderson, Chairman, Dept. of Mathematics, University of Santa Clara, Santa Clara, CA 95053.

The American University. Starting July or September 1976 position involving teaching undergraduate and graduate classes, and conducting research. Preferred areas of interest are operating systems, programming languages, or data base management. Contact: Dr. David Crosby, Chairman, Department of Mathematics, Statistics, and Computer Science, The American University, Washington, D. C. 20016.

Smithsonian Institution. Smithsonian Fellowships awarded to support independent research using Smithsonian Institution collection, archives, laboratories, and other facilities, and pertaining to Smithsonian professional staff research interests. Proposals for research may

be offered in following fields: history of mathematics, physical sciences, medicine and pharmacy, mechanical and civil engineering and electrical technology, history of science in America, and history of air and space developments. Fellowships (stipend of \$10,000 per annum and research allowances) granted to postdoctoral scholars to pursue further training in research. Predoctoral Fellowships (stipend of \$5,000 per annum and research allowances) granted to doctoral candidates to conduct research for their dissertations. Contact: Office of Academic Studies, Smithsonian Institution, Washington, DC 20560.

U. of Delaware. Assistant Professor, Computer Science. Ph.D. in computer science or closely related field required. Start Feb. 1, 1976, however applications for Sept. 1, 1976 accepted. Send resume and three references to Dr. James Leathrum, Chairperson, Dept. of Statistics and Computer Science, U. Delaware, Newark, DE 19711. Telephone 738-2712.

University of Delaware. Professor, Statistics. Ph.D. or equivalent required. Duties: assume academic and research leadership of department. Send vita with references, to Henry Tingey, Secretary, Search Committee, Department of Statistics and Computer Science, University of Delaware, Newark, DE 19711. Telephone 738-2712.

U. of Delaware. Assistant Professor, Statistics. Ph.D. in statistics required. Research interests in problem oriented area, e.g., regression design, stochastic modeling. For Sept. 1976. Contact: Henry Tingey, Department of Statistics and Computer Science, U. of Delaware, Newark, DE 19711. Telephone 738-2712.

Florida International University, Dept. of Mathematical Sciences, opening for applied mathematician on assistant or associate professor level. Starting date September, 1976. A Ph.D. with strong mathematical and teaching ability required. Send resume to: Dr. Samuel S. Shapiro, Chairman, Department of Mathematical Sciences, Florida International University, Tamiami Trail, Miami, FL 33199.

Columbus College Assistant Professor. Salary \$12,000 - \$13,000/academic year; summer employment available. Ph.D. required. Work in Computer Science desirable. Applicants must be willing to teach evening classes. Position beginning Jan. 1, 1976. Contact: Dr. C. W. Davis, Chairman Search Committee, Dept. of Mathematics, Columbus College, Columbus, GA 31907. Telephone (404) 568-2294 or (404) 568-2056.

Idaho State Univ. Chairman, Department of Mathematics: Ph.D. required; training in numerical analysis and/or administrative experience is desirable but not required. Rank, Assistant Prof. or Associate Prof. Salary, \$13,000 - \$18,000 nine months. Nine-month or twelve-month contract available. Teaching load, two classes. Send resume, three letter of recommendation to: Search Committee, Department of Mathematics, Idaho State Univ., Box 8438, Pocatello, ID 83209. Application deadline, Feb. 1, 1976.

University of Illinois at Chicago Circle. Jr. and Sr. level openings (contingent upon funds) in pure mathematics, applied mathematics, statistics, computer science, and mathematics education. Ph.D. required for jr. position and continuing research interest and at least one year's teaching experience. Intensive research and ability to advise Ph.D. theses required at sr. level. Contact: Philip Dwinger, Head, Dept. of Mathematics, University of Illinois at Chicago Circle, Box 4348, Chicago, IL 60680, telephone 996-3041 (312)

University of Illinois at Chicago Circle. Assistant or Associate Professor, Ph.D., for undergraduate & graduate teaching and research in general area of operating systems, preferably with experience in design for multiprocessor/multiprocessing computer systems. --Assistant or Associate Professor, Ph.D., for undergraduate and graduate teaching and for research in integrated electronic circuits and systems with experimental background in MOS, CMOS, CCD, and like technologies. Individual will provide leadership in engineering research and teaching laboratories in the area. --Assistant or Associate Professor, Ph.D., for undergraduate and graduate teaching and for research in general area of digital communication systems, preferably with experience in computerized systems. For all three positions send resume and selected recent publications to Professor Bruce H. McCormick, Head, Department of Information Engineering, University of Illinois at Chicago Circle, Chicago IL 60680. Starting dates: Jan. 1, March 15 or Sept. 1, 1976.

Indiana University. Computer Science Dept. Assistant Professor. Applicants in fields of programming languages, operating systems, information systems and theory, and computer architecture, or any area computer science. Ph.D. required. Expect to teach; establish an active research program. Actively soliciting applicants from minorities and women. Application deadline: Jan. 15. Contact: Stanley Hagstrom, Acting Chairman, Computer Science Department, Indiana University, Bloomington, IN 47401.

Indiana University Jr. positions available in pure and applied mathematics, probability and statistics. Sr. position in applied mathematics, differential equations or probability. Candidate must have strong research background and experience in working with graduate students. Contact: Maynard Thompson, Chairman, Dept. of Mathematics, Bloomington, IN 47401.

University of Iowa. Dean for Advanced Studies. Primary responsibility the academic programs of the Graduate College. The Dean remains a teacher in his/her academic field. Starting date July 1, 1976. Applications by November 15, 1975. Send letter and resume to: Vice President D. C. Spriestersbach, the University of Iowa, Iowa City, IA 52242.

Kansas State University. Department of Mathematics. Assistant Professor, 6-10 contact hours per week. Report, August 15, 1976. Prefer areas of physical science oriented applied mathematics or point set topology with emphasis on partially ordered structures. Ph.D. required. Contact: John E. Maxfield, Head, Department of Mathematics, Cardwell Hall, Kansas State Univ. Manhattan KS 66506.

University of Maine. Assistant Professor of Mathematics. Ph.D. in Mathematics or Operations Research. Full time permanent appointment starting fall 1976. Duties involve teaching undergraduate and graduate courses in general area of Operations Research, coordination of an Operation Research group who will work with Maine business and industry. Application deadline Feb. 1. Contact: Professor John C. Mairhuber, 304 Shibles Hall, University of Maine at Orono, Orono, ME 04473.

University of Maryland. Professorship. Interested in number theorists or algebraists or algebraic geometers with collateral interests in number theory. Appropriate credentials expected. Contact: Professor J. K. Goldhaber, Chairman, Department of Mathematics, University of Maryland, College Park, MD 20742.

University of Maryland. Assistant Professor in Mathematics and Statistics beginning academic year 1976-77. Submit vita and three letters of recommendation to: Professor J. K. Goldhaber, Chairman, Department of Mathematics, University of Maryland, College Park, MD 20742.

Salisbury State College. Asst. or Assoc. Prof., 13.5-17 for nine months, 12 hr. load. Ph.D. required. Experience with assembly languages & educational computing. Background in applicable & constructive math. Assist in developing math sciences program. Good teaching recommendations. Contact: Professor B. A. Fusaro, Chairman, Mathematics Dept., Salisbury State College, Salisbury, MD 21804.

Salisbury State College. Assist. or Assoc. Professor, 13.5-17 for nine months. Ph.D. Statistician. Experience in applied statistics. Ability to work with administration, and other departments, especially biology. Be able to assist with developing a "math sciences" curriculum. Twelve hours load. Contact: Professor B. A. Fusaro, Chairman, Mathematics Dept., Salisbury State College, Salisbury, MD 21804.

Massachusetts Institute of Technology. Department of Mathematics, Cambridge, MA 02139. C.L.E. Moore Instructorships in Mathematics 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 \$14,000. Applications should be filed not later than 1/2/76. Referees should return reference forms direct to M.I.T. by 1/16/76. For further information write to Pure Mathematics Committee, Room 2-173.

Massachusetts Institute of Technology. Department of Mathematics, Cambridge, MA 02139. A limited number of instructorships are available for postdoctoral mathematicians 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, 1976. For further information write to Committee on Applied Mathematics, Room 2-345.

Massachusetts Institute of Technology. Department of Mathematics, Cambridge, MA 02139. One or two assistant professors in pure mathematical areas 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.

Michigan Technological University. Position vacancies in Accounting (MBA & CPA; Ph.D. or D.B.A. desired), Finance (Ph.D. or D.B.A. required), Marketing (Ph.D. or D.B.A. required), and Organizational Behavior/Human Resources (Ph.D. or D.B.A. required). Will consider applicant working on doctorate. Contact Dr. Peter G. Biesiot, Dean, School of Business and Engineering Administration, Michigan Technological University, Houghton, MI 49931. Openings Sept. 1976 or could start March 18, 1976.

Michigan Technological University. Possible opening Mathematics Department. Assistant professor (one year renewable appointment, possibly leading to permanent tenure). Ph.D. required or records to show substantially equivalent professional standing. 12 hours teaching load. Availability: Sept. 5, 1976. Contact: Dr. Zane C. Motteler, Head, Mathematics Department, Michigan Technological University, Houghton, MI 49931.

University of Michigan. One senior numerical analyst; one or two T. H. Hildebrandt Research Assistant Professorships (Intended for persons who have completed Ph.D. not more than 2 years ago.) with salary at least \$12,500. Hoped for positions: two or three for persons working in (or near) several complex variables, algebraic geometry, partial differential equations. Contact: Professor J. G. Wendel, Associate Chairman, Department of Mathematics, Ann Arbor, MI 48104.

St. Cloud State University, Assistant or Associate Professor, Computer Science Area for Sept. 2, 1976. Preference given to candidates with Ph.D. in computer science. Some teaching experience desirable. Send application, vita, transcripts, and three letters of recommendation to: Dr. Kent F. Carlson, Chairman, Dept. of Mathematics & Computer Science, St. Cloud State University, St. Cloud, MN 56301. Phone: (612) 255-3001. Deadline March 1, 1975.

U. of Missouri at St. Louis. Vice Chancellor for Academic Affairs. Responsibilities include implementing academic policy and preparing budgets. Send nominations, applications (with resumes) no later than Dec. 22, 1975 to Dr. Conney M. Kimbo, Chairperson, Vice Chancellor Search Committee, U. of Missouri at St. Louis, Office of the Chancellor, St. Louis, MO 63121.

University of Nebraska at Omaha. Probationary appointment open in Department of Engineering Technology at associate degree level. Should have an interest in freshman level courses in either electronics, building construction, or drafting technology to supplement a strong background in applied mathematics. Terminal degree in technology or satisfactory progress and industrial experience is required. Beginning Fall Semester 1976-77. Closing date April 15, 1976. Contact: Dr. Bart Dennehy, Associate Dean, College of Engineering and Technology, University of Nebraska at Omaha, Box 688-Downtown Station, Omaha, NE 68101.

Dartmouth College. Assistant Professor, Statistics for Sept. 1976. Ph.D. required. Salary begins at \$12,000. Candidates should have interest in teaching, research, and consulting. Persons interested in a half-time appointment will be considered. Women and minority group members are encouraged to apply and identify themselves. Contact: Prof. Richard H. Crowell, Chairman, ATTN: Recruiting, Department of Mathematics, Dartmouth College, Hanover, NH 03755.

Dartmouth College. 2 John Wesley Young Instructorships, 2-year non-renewable postdoctoral appointments, intended for Ph.D.'s with strong interest in teaching and research. Teaching duties average 6 hrs. a week and include introductory, advanced undergraduate, and graduate courses. 9-month salary \$12,000, plus 2-month summer research stipend of \$2,000. Women and minority group members are encouraged to apply and identify themselves. Contact: Prof. Richard H. Crowell, Chairman, ATTN: Recruiting, Department of Mathematics, Dartmouth College, Hanover, NH 03755.

Rutgers Univ. Department of Mathematics. Mathematicians for junior level positions in all specialties who have outstanding research ability in pure or applied mathematics and concern for teaching. Contact: Daniel Gorenstein, Chairman, Department of Mathematics at New Brunswick, Rutgers Univ., Hill Center, New Brunswick, NJ 08903.

New York area company. Marketing Supervisor - Economic Analysis. Required a Bachelor's Degree with MBA or equivalent experience, four years business/government experience, experience in operating both on macro and micro basis preferably with a lease-oriented corporation, must have demonstrated and developed plans and methodologies for economic analysis in a major multi-subsidary firm, must have a working knowledge of mathematical tools such as regression analysis, statistics, etc., experienced in developing and implementing economic models in a business/government environment, must have a working knowledge of FORTRAN, Basic or APL. Compensation: to \$32,000. Contact: Peter A. Rabinowitz, Vice President, Batholdi, Larkin & Co., Three New England Executive Park, Burlington, MA 01803.

SUNY at Binghamton. Dean of Arts and Sciences and Dean of Harpur College: chief administrative officer in the Graduate School of Arts and Sciences and of Harpur College. Contact: Edith Borroff, Chairman, Search Committee for the Dean of Arts and Sciences, SUNY at Binghamton, Binghamton, NY 13901.

State University of New York at Buffalo. Dept. of Mathematics is awarding George William Hill and Emmy Noether Research Instructorships to recent Ph.D.'s in Mathematics. All Ph.D. requirements must be completed by Sept. 1, 1976. One Research Instructorship in Applied Mathematics

and one in Pure Mathematics for 1976-78. 12-month stipend, beginning Sept. 1976 is \$16,200 with staff benefits. The teaching load will total two one semester courses during 12-month period. After two year Instructorship, consideration for two-year appointment as assist. professor will be given. Application forms available. Forms, supporting letters, and educational background to: Chairman, Dept. of Mathematics, SUNY at Buffalo, 4246 Ridge Lea Road, Amherst, NY 14226 by January 20, 1976. No one holding academic rank at SUNY Buffalo is eligible.

Kent State University. Department of Mathematics Chairperson. Should have significant research stature and demonstrated administrative ability. Qualified candidates in all fields encouraged to apply. Especially interested in attracting candidates in applied mathematics, numerical analysis and computer science. Start Sept. 15, 1976. Deadline Jan. 31, 1976. Contact: Professor Richard K. Brown, Secretary, Chairman Search Committee, Dept. of Math., Kent State University, Kent, OH 44242.

Oregon State University. Assist. Prof. of Computer Science. Start Sept. 1976. Application Deadline, March 15, 1976. Ph.D. Computer Science or related discipline required. Candidates should be versed in several of the areas of computer architecture and information systems design, information retrieval, operating systems design, software management, and computer graphics. Ask two or more references to write directly to the Department. Send resume to Robert A. Short, Chairman, Department of Computer Science, Oregon State University, Corvallis, OR 97331.

University of Oregon. Research Associate in the Center for Educational Policy and Management, College of Education. Full-time research position. Candidates must hold an earned doctorate or have equivalent experience. Those who have conducted organizational research in schools attempting to install a major innovation will be strongly preferred. Appointment for one academic year; project may be for as many as five years depending on the continuation of federal support. Starting date: any time after December 15, 1975, but not later than Feb. 1, 1976. Application with supporting curriculum vitae by Nov. 1, 1975 to Lloyd DuVall, Associate Director, Center for Education Policy and Management, 1472 Kincaid St., Eugene, OR 97401.

Bucknell University. Assistant Professor with Ph.D. obtained by 1976. Strong commitment to teaching and high research potential. Background in mathematics and statistics. Potentially permanent and tenurable. Application deadline January 15. (Application: curriculum vitae, graduate transcript, three letters of recommendation.) Contact: David S. Ray, Chairman, Dept. of Mathematics, Lewisburg, PA 17837.

University of Pennsylvania. Assistant or Associate Professor, Department of Statistics, beginning Sept. 1, 1976. Ph.D. in statistics. Primarily interested in a person with the following areas of interest - applied statistics with emphasis on business oriented problems, decision theory or econometrics, experimental design. Salary will depend on rank and experience. A curriculum vitae and the names of three references should be sent to: Professor John S. de Cani, Chairman, Department of Statistics, E220 Dietrich Hall/CC, University of Pennsylvania, Philadelphia, PA 19174.

Washington State University One- or two-semester visiting joint appointments in Dept. of Pure and Applied Mathematics and a mathematical consulting unit at Washington State Univ. Appointees responsible for helping develop new graduate curricula in applied math. in an NSF-supported project and should be sr. mathematicians (with Ph.D. or equivalent) with extensive nonacademic research experience. Appointments may begin as early as February 1976. Evaluations begin Nov. 15, 1975. Vitae (with at least three references) to: Professor D. Bushaw, Dept. of Pure and Applied Mathematics, Washington State University, Pullman, WA 99163.

Marshall University. Vacancies in Departments of Accounting, Management, Marketing and Computer Studies Program. Assistant or associate professors (six positions). Appointment date: Jan. 1, or August 15, 1976. Salaries for holders of Ph.D. \$13.5 - \$17.0 k for 9 mos. Professional experience in business and academic life will be considered; a complete doctorate is prerequisite to all appointments except in Accounting. Ideal candidates will have strong academic training in quantitative analysis, behavioral sciences and organization theory. Address dossier, academic credentials and at least 3 letters of recommendation to the appropriate chairman: Mr. Charles D. Webb, Chairman, Dept. Accounting; Dr. Robert P. Alexander, Chairman,

Dept. Management; Dr. William P. Ashford, Chairman, Dept. Marketing; Dr. Phillip Balsmeier, Chairman, Computer Studies Program. College of Business & Applied Science, Marshall University, Huntington, WV 25701.

Lawrence Univ. Dept. of Math. Probable position, possibility of tenure, begin 9/76. Preparation in biostatistics, numerical analysis, computer science, applied analysis, or systems analysis preferred, Ph.D., exhibited excellence in teaching, broad interest in applicable math essential, experience in interdisciplinary programs, ability to teach computer workshops (BASIC) and/or elementary stats desirable. Teach six courses/yr. Contact: Steven Douglas, Chairman, Dept. of Math., Lawrence Univ., Appleton, WI 54911.

The fee for each regular advertisement to appear in the Newsletter is \$5 per issue. With our low dues structure and the high cost of publication, this is the minimum fee we can charge in order to break even. On the other hand, if a college, university or organization cannot afford the fee, then we will publish the advertisement without charge.

Advertisements to appear in the Newsletter should be sent to:

Editors, AWM Newsletter
c/o Department of Mathematics
Wellesley College
Wellesley, MA 02181

Due Dates for ads for the Newsletter:

January Newsletter	copy by December 15
February Newsletter	copy by January 15
March Newsletter	copy by February 15
April Newsletter	copy by March 15
May-June Newsletter	copy by May 15
July-August Newsletter	copy by July 15
Sept.-Oct. Newsletter	copy by September 15
Nov.-Dec. Newsletter	copy by November 15

The AWM job register is changing its method of operation. The job announcements we will now be sending out are those that will eventually appear in the Newsletter. However they will be mailed first class by the page rather than in a bulk mailing every month or so as the Newsletter comes out.

In order to receive these listings, please send several stamped self-addressed envelopes to:

AWM Job Register
Department of Mathematics
Wellesley College
Wellesley, Mass. 02181

Address any questions about the register to:

Judy Green
10106 Leder Road
Silver Springs, MD 20902

The following ads arrived as we went to press.

U. of California, Berkeley. Probably several 2-year lecturer post-doctoral positions starting July 1, 1976. Send resume, reprints, preprints and/or thesis abstract, three letters of recom-

mentation to Vice Chairperson for Personnel, Department of Mathematics, U. of California, Berkeley, Berkeley, CA 94720.

U. of California, Berkeley. Department of Statistics. One assistant prof. One assoc. prof. or professor with associate prof. rank preferred. Minority and women candidates are urged to apply. Contact: Professor E. L. Lehmann, Department of Statistics, U. of Cal., Berkeley, CA 94720.

Ball State U. Computer Science. Teaching position start Sept. 1976. Required: Doctorate, two years teaching experience college or university level. specialty in one of following: Programming Languages, Systems Programming, Systems Design, or Management Information Systems. Send resume, three letter of recommendation by Feb. 1, 1976 to Mr. Duane E. Deal, Chairman, Mathematical Sciences Department, Ball State University, Muncie, IN 47306.

U. of Minnesota. Department Management Sciences. Two Assistant Professor positions. Quantitative Analysis-Operations Management: teaching, research, service; Quantitative Analysis: teaching, research, service. Start 9-16-76. Contact Normal L. Chervany, 708 Business Administration, U. of Minnesota, Minneapolis, MN 55455.

REPORT FROM LOS ANGELES

The first meeting of the AWM in Southern California was held on November 15 at UCLA, in conjunction with the AMS meeting. There were 25 persons present, including a number of non-members.

Janet Palmquist presented a short program, describing three projects in which special classes for women were instituted. The first of these, at the Lawrence Hall of Science in Berkeley, involved high school students ("Math for Girls"), the second was a pre-calculus program at Mills College (which Lenore Blum has written up for the Newsletter), and the third project was an upper-division tutorial class in algebraic topology at U C Berkeley, organized by Esther Silberstein. A discussion following Janet's presentation brought out two points: first, the difficulties and/or desirability of setting up math classes for women only, and secondly, attracting students once such classes were set up. It was pointed out that you may have to advertise such a class, or even go out and recruit students, until such a project really gets going. John Ernest said that the students in his seminar who gathered the data for the book, "Mathematics and Sex", had to be recruited--only one student had signed up the first day of class. So, he visited each of the Calculus and Sociology lecture sections and discussed the seminar; in this way he got 15 students. Similarly, Esther Silberstein telephoned all of the upper-division women math majors at Berkeley to tell them about her tutorial project.

The group then discussed possible future projects for our area. There was a general feeling that we should try to do something to reach high school students and counselors, so that more girls will take enough math in high school so that they can begin calculus as college freshmen, and not cut themselves off from the many occupations that now require some mathematics background. Two ideas seemed quite workable: Ruth Afflack pointed out that there is an annual meeting of high school teachers (the CTC) which about 4,000 math teachers from California attend. This year's meeting was last week, but we should be able to get on the program for next fall, and present a program (or workshop) on women in mathematics. Secondly, there are a number of field days in mathematics for high school students held at local colleges (such as Occidental and Pomona), and it would be a good idea to at least have a representative there to encourage the girls who attend. Laurie Foster and Barbara Beechler said that they would check with the organizers of these events and report back at our next meeting.

Janet Palmquist says that there is a special unit for the U C campuses, called "Relations with Schools", which contacts high school counselors directly, and they are quite receptive to the idea of encouraging high school girls to take more mathematics.

Lenore Blum suggested that we send letters of congratulations to those girls who rank in the top 500 in the Putnam exam, which seemed like a very good idea. Later it was suggested that we do a similar thing for the High School Olympiad, though this is a much bigger job. I have a list of the Putnam contestants, so this will not be a difficult project.

Finally, the next meeting will be held on Tuesday, January 13, 1976. Laurie Foster very generously offered her home for the meeting, which will be a potluck supper. Her address:

8735 White Oak, Northridge, CA. Please RSVP (at 213-349-8103) so she will be able to organize dinner.

Susan Montgomery

BELL LABORATORIES GRADUATE RESEARCH PROGRAM FOR WOMEN

Bell Laboratories has announced a new program in which it will offer each year, "two graduate fellowships for truly outstanding women undertaking work for a doctorate in a discipline of interest to Bell Laboratories. These fellowships would cover relocation expenses, university tuition and fees and provide a monthly living stipend during the academic year at a level comparable to the Cooperative Research Fellowship Program. In addition, the women would be offered summer employment at Bell Laboratories and association with a Bell Labs scientist as mentor. These arrangements would extend for the normal duration of graduate study.

"Bell Laboratories will also offer each year to two highly recommended women, an opportunity for summer research employment at Bell Labs under the guidance of a Bell Labs scientist. Each of these women would also receive a grant of \$1,000 for use in the following academic year to increase her professional opportunities. This might include attendance at scientific meetings or provision for child care. This arrangement would also continue for the normal duration of graduate study."

For information write to Graduate Research Program for Women, Bell Telephone Laboratories, Murray Hill, NJ 07974.

FROM THE EDITORS

Thanks to all those who so carefully typed their articles for our reproduction process.

The criteria are:

the surface covered by type should be 8" wide and 10" long unless the article is shorter;

the ribbon must be carbon, the typewriter electric.

If you have material to submit, it is greatly appreciated if you type it according to these specifications so it doesn't have to be retyped.

FUTURE AWM MEETINGS

San Antonio, TX, Friday, January 23: 10:30 a.m. Panel discussion on "Women mathematicians in business, industry, and government."

Business meeting.

Thursday, Jan. 22: 7:00 p.m. Open meeting of the Executive Committee.

COMING IN THE NEXT NEWSLETTER:

Part I of the biography of Lady Lovelace (a founder of computer science).

A report on teaching elementary school girls about mathematics.

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Contributions welcome
and needed.

November - December, 1975

Department of Mathematics
Wellesley College
Wellesley, MA 02181
AWM

Give a friend a membership in the AWM for a holiday gift.
(Ed. Note: it sure would have been nice to have gotten such
a gift early in my graduate career - JR)

REMINDER: Dues for the period October 1, 1975 to September 30, 1976
were payable October 1. This is the LAST Newsletter you
will receive until your dues are paid.

LATE NEWS BULLETIN

Mary Gray has been elected to a vice-presidency of AMS.

Phyllis Cassidy and Chandler Davis have been elected to the AMS Nominating
Committee.