FILE

ASSOCIATION FOR WOMEN IN MATHEMATICS

NEWSLETTER

Volume 5, number 3 April 1975

REPORT FROM THE PRESIDENT

Election of Officers

Congratulations to Lenore Blum, who is the President-Elect of AWM and who will on July 1 take office as President for the period 1975-77! Lenore was the unanimous choice of the those making nominations for the office of President. She is currently on the Evecutive Committee of AWM as the West Coast Representative.

There were several nominations for Representative from the South for 1975-79 so that there will be an election for this office. The nominees are Anne M. Leggett, University of Texas, Austin; H. Christine Stokes, University of Mississippi; and Betsey S. Whitman, Florida A & M University. A ballot appears at the end of the Newsletter.

With Lenore's becoming the President on July 1, the Representative from the West on the Executive Committee must be elected. A ballot for nominations for this position also appears at the end of the Newsletter.

There was only one nomination for Treasurer/Editor of the Newsletter and that person prefers not to be a candidate for the post for next year. So that office is still open. A ballot for nominations for this position appears also at the end of the Newsletter.

Please send in your nominations, for yourself or for someone else. The Executive Committee will check with the individuals nominated to determine if they wish to be candidates and will issue the appropriate ballots in the next Newsletter, the May-June issue. The continuing members of the Executive Committee are President: Lenore Blum; Representative from the Midwest: Evelyn Boorman; Representative from the East: Mary Gray; Employment Registrar: Judy Green; Past President: Alice Schafer.

Fellowships

Congratulations to Nancy J. Kopell who has been awarded a Sloan Research Fellowship! This is the second year in the 20 year history of the Sloan Fellowships that a woman has received one of the fellowships. Last year was the first year when two women, Joan Birman and Karen Uhlenbeck, received them.

There were no women recipients of the Guggenheim Fellowships this year. AWM encourages women who are eligible for these fellowships to apply next year! We would like to see some women's names on the list of Guggenheim Fellows.

Sectional AWM meetings in March

Boston: The meeting held at MIT on March 19 was a good one with about twenty people present. Bhama Srinivasan gave an excellent talk, entitled "Have a simple group for tea", in which she talked about the new sporadic groups, giving their history and the present state of the problem of determination of all finite simple groups. Her lecture was followed by a lively business meeting.

New York: Linda Keen, who had organizaed an AWM meeting to coincide with the AMS meeting at the Biltmore Hotel, reports that the informal sherry hour was a success. About twenty five people came to the meeting. This was a particularly large number since the AMS meeting was a sparsely attended one. Linda reports that there was "much talk about many things, mathematics, job problems, etc. All in all, I think it [the meeting] was worthwhile".

Reports of the Mobile meeting in March and the St. Louis one in April should appear in the May-June issue of the Newsletter.

AWM Dues

I am sure that all of you noticed the small size of the print in the March Newsletter for which I apologize and say that I only hope that you could read the Newsletter in any case. The explanation is rather simple: the Treasury is low! Until the last minute I had hoped that the Newsletter could be printed at Wellesley College which would have made the cost much less than having it published by a commercial publisher. When I discovered that at that time it might take four weeks to get the Newsletter published if Wellesley did it, I went to a commercial publisher after all. By that time, it was too late to reduce the number of articles so the type was reduced instead in order to save money. We barely have enough money in the Treasury to publish this Newsletter. At least, fortunately, it seems that it can be printed at Wellesley this time. So, a lack of funds brings the Executive Committee to the question of dues!

In looking over a list of dues charged by similar organizations we have by far, with the exception of the National Federation of Business and Professional Women's Clubs, Inc., the lowest

dues structure of any of them. The organization just mentioned charges dues of $6 per year whereas, for example, the yearly dues for the Association of Women in Science are $18; for the National Association of Women Lawyers, $15; Society of Women Engineers, $25 (senior) and $20 (associate); American Women's Medical Association, $35. It is clearly time to change our dues structure. The Executive Committee has voted to raise the individual dues to $5. per year for those persons who are employed; a family membership, with only one Newsletter, to $6. per year; and a fee of $2. per year for retired members, students, and unemployed persons.

The Executive Committee also looked at the question of the time when dues should be paid. With no paid secretarial help, and a membership that is now near a thousand, it is difficult to keep the membership list up to date on a month by month basis. Therefore, the Executive Committee has voted to have all dues payable on October 1 of each year. This date has the advantage of not coinciding with the dues date for the AMS and the MAA and also the advantage that by October 1 those members in the academic community know their addresses for the academic year which makes change of addresses with AWM easy to handle.

The next question is how to put the new dues structure into effect. The Executive Committee decided that the most equable way to do this is, in essence, to split a year into two parts and say that people whose membership in AWM expires between April 15, 1975, and September 1, 1975, may renew their membership at one-half the old rate schedule for the period to October 1,1975; that is, $1.50 for an individual membership and $2 for a family membership and that memberships for those people will expire on October 1, 1975. Then the dues for all members will be payable on October 1, 1975, at the new schedule. So, the new dues schedule is:

Annual Dues. Payable on October 1.	
Individual	$5
Family (one Newsletter)	$6
Retired, Student, Unemployed	$2

Contributions, over and above dues, welcome and needed!

At present the Institutional Membership rate is $10 per year. The Executive Committee will discuss this rate and make an announcement before the next Newsletter appears. One question which should be asked and answered is whether Institutional Members should be allowed to advertise their job openings in the Newsletter at a lower rate than non Institutional Members. If so, at what rate and should the Institutional Member rate be raised from the current rate.

The Executive Committee recommended that AWM make an effort to enlarge its number of Institutional Members. This will be done. You can help here by encouraging your own institution to become an Institutional Member in case it is not already.

This is the last note on dues. On this issue of the Newsletter, if your dues were due in February or March and have not been paid, the number 2/75 or 3/75, whichever is applicable, will be put on your mailing label. For those whose dues are payable in April or May labels will have 4/75 and 5/75, respectively. There are some people whose dues have not been paid since 1972 or 1973; their Newsletters will be labeled X or Y, respectively. Those not paying their dues before the May-June Newsletter is off the press will not receive that Newsletter. So, if you do not receive a May-June issue of the Newsletter, it is because your dues are overdue and have not been paid. AWM needs your help and support so please renew your membership. For all dues payments, make checks payable to Association for Women in Mathematics, and mail to me at Department of Mathematics, Wellesley College, Wellesley, MA 02181.

I am sorry that the above Report is so full of money matters, but with the increase in publishing costs and with a membership now of nearly a thousand, there is no alternative.

Since the Boston Area AWM members are publishing the Newsletter this spring, please send all news articles, letters, etc. to me at the above address. They are what make the Newsletter what it is.

Alice T. Schafer

*****

DEATH NOTICE: Lillian R. Casey

It is with sorrow that we report the death of Lillian Casey, Head of the AMS Meeting Arrangements section. She died unexpectedly on February 21, 1975, at the age of 37. She had always been most cooperative, pleasant, and helpful in her dealings with AWM in making arrangements for our meetings at the time of AMS meetings. We shall miss her.

*****

WOMEN - AND MATHEMATICS, PHYSICS AND TECHNOLOGY?
WOMEN - AND RESEARCH?
Parts V and VI

by Else Hoyrup, Mathematics Institute,
Copenhagen University
(Translated by John Lamperti, Dartmouth)

5. Abstraction and concentration.

The majority of girls and women are still brought up without much training in thinking abstractly about, for example, social conditions ("politics is not for girls") or mathematics ("mathematics is not for girls"). In this fashion they become less able to cope confidently with their surroundings, and they have poorer chances of getting work having some "content".

Girls and women are normally not at all accustomed to speculate about or discuss how things could or should be. This can make them rather conservative and afraid to try new things, and it can, for example, restrict their artistic or scientific talents.

In addition, ideology leads women to believe that work (outside the home) is something which plays a very limited role in a woman's life, so that she does not need to develop solidarity with people outside the narrow circle of her family and friends and does not need to "lower" herself through trade-union activity. (It is known that many men even forbid their wives to join a union, and there are also women who are forbidden by their husbands to take part in a strike.)

A very important factor in abstract thinking is concentration, but when do girls and women (either staying home or with outside work) get a chance to concentrate--unless as small children or when very old? It is an old expectation that a woman, in contrast to a man, should never just sit still and think, but must always have her hands occupied. (For example, as late as 1962 the rules and customs in an especially intellectual Danish gymnasium school permitted the girls to knit during their classes in the last month before Christmas.) And so girls are often forced to spend a great deal of their time in puttering with small domestic matters and in speculating about and working with their appearance.

6. The dividing line in girls' overall school performance during adolescence.

Before the age of about 14-16 girls on the whole do a little better in school than boys. This is partly because girls develop earlier, but also because during this period girls receive support for doing well, in contrast to what happens after puberty. After all, it is agreed that girls should learn a little something before they get married, and a great deal of the more independent intellectual work in school is not required until the children are about to become adults; that is, until adolescence!

In the gymnasium, however, the boys seem to do a little better than the girls. This appears also to be the case in many sorts of higher education.

That the girls on the whole do better during the early school years and boys better later on is perhaps because (as mentioned earlier) girls in the lower grades, on account of their unbringing, can better conform to the demands which the school situation (including, among other things, the many women teachers) makes upon them--while girls in the higher grades feel compelled to give up their intellectual success in order to protect their femininity and their popularity with boys (and with others as well). For older girls and young women it is really a question of an identity problem, and the ideologically and socially created conflict between either being capable or being "sweet" and "feminine" is a very serious matter for a great many girls during adolescence. It is really amazing and very disturbing, to see how difficult it is for people to accept that women can be capable and feminine at the same time.

- Example 1: The reaction of journalists and others to Ritt Bjerregaard, when she became Minister of Education in September, 1973. (Such a pretty little lady could hardly be competent and strong ...)
- Example 2: When a Danish woman mathematician was working in the USA a few years ago, a male colleague said to her one day that he thought something must be wrong with the femininity of women who become professional mathematicians, that they must have Lesbian tendencies. Still, he thought that Scandinavian women could be both professional mathematicians and "proper women", since he had heard that all Scandianavian women were so sexy.
- Example 3: A male physicist of my acquaintance reacted to our conversation about the position of women in science by teasing my daughter Sara, barely 4 years old (!), because some of her attitudes are "girlish"! I objected that there was nothing so surprising in this since obviously she was a girl, but that it did not prevent her from being a (normally) competent little girl. The man could not accept this, and kept on saying to her that she must be a boy, named Sophus.

Returning to education, another factor is that boys in older classes are urged to be more ambitious about their future careers than girls. Myths about marriage still prevent many girls from getting proper professional education. Instead, girls are supposed to be content with a little training as job-insurance in case of divorce.

- An example: A woman I know wanted to become a pharmacist, but was essentially forbidden by her father. He thought it would be a waste of a fine education if she, as a woman, received it; at most, she should have a lesser education for insurance against divorce. But after working for some years as a laboratory technician, marrying and having a child, she felt she had conformed long enough. So she entered the university and began to study chemistry.

Both unbringing in the home and the job expectations of those around one (especially parents and boyfriends) thus work together with the structure of the school and with some fundamental prejudices to put the brakes on the intellectual development of girls at about the time of puberty, when young people are especially sensitive. Of course, many other factors also play a role: Advertising, films and weekly magazines, for example, but also children's literature and school books. These generally treat girls and women as "creatures" whose place is in the home. Although I do not think it is the decisive point in putting the brakes on the intellectual and personal development of girls, arithmetic books are in fact especially bad in portraying "female creatures" in discouraging roles. One can become quite depressed by reading arithmetic books from a sex-role and a social viewpoint.

> When I think back to my own old arithmetic books, it is striking that girls and women scarcely ever appear except in connection with shopping, while boys and men did a variety of more or less exciting things.
>
> During the 1960's a thorough revision of arithmetic teaching has taken place, and most text book series have broken all bridges to the past as regards their mathematical content and organization. One might hope that the radical rethinking of the subject matter (whose other problems will not be discussed here, but which my husband and I have written about in our joint book Mathematics in Society and elsewhere) could have rubbed off on the attitude toward sex-role stereotypes, among other things--not at all because mathematical thinking and sex-role awareness are connected, but simply because the textbooks were being reworked from the ground up at a time when change was occurring in the actual sex-role patterns themselves.
>
> It turns out, unfortunately, that on the whole the changes in the Danish arithmetic and mathematics textbooks are for the worse. In that segment of the population from which school-book authors come, the developments of the 60's apparently did not produce a greater tendency to treat women and men on an equal footing and regard them as being of equal worth.

*****

BIOGRAPHY, CECILIA KRIEGER-DUNAJ

From Notes of Canadian Mathematical Congress, January 1975, by permission of the author.

Cecelia Grieger was born in Jaslo in Southern Poland in 1894. After finishing school she went to the University of Vienna. Those were war years. When it was all over she came with her parents, brothers and sisters to Toronto in 1920. She was a born academic, and enrolled immediately in Mathematics and Physics at the University, graduating in 1924 and continuing to receive her MA in 1925.

This was a stimulating time at the University. J.C. Fields had made his name in the mathematical world and his student Samuel Beatty had received Canada's first Ph.D. degree in 1912. Beatty was a member of the Mathematics Department, and along with the Chairman, A.T.DeLury, was attracting new blood: A.F.C. Stevenson and W. J. Weber arrived in 1923 (Stevenson to supplement J.L. Synge in Applied Mathematics and Webber to bring the legacy of W.H.Young from Cambridge to Toronto).

Curiously enough, Cecelia's nephew has discovered a listing of the courses she took during her years as a postgraduate student. DeLury had brought Jacques Chapelon to Toronto in 1924 and Cecelia took his course on Modular Elliptic Functions along with Synge's Minimum Principles of Mechanics and Beatty's Theory of Sets. She took Field's Course on the Theory of Numbers in 1925-26 and began to work in earnest on the Theory of Functions with Webber. Her thesis was contained in two papers published in the Proceedings of the Royal Society of Canada, the first one "On the summability of trigonometric series with localized properties" (22(1928), 139-147) and the second

"On Fourier constants and convergence factors of double Fourier series" (24(1930), 161-196).

After getting her degree in 1930 she went to Göttingen in 1931 where Hans Heilbronn remembers meeting her. On returning to Toronto she was appointed a Teaching Fellow in the Department. She was an excellent lecturer and was much appreciated by the engineers to whom she devoted the bulk of her time. But she was fundamentally a mathematician and her love of Topology, the theory of sets, led her to translate Sierpinski's "Introduction to General Topology" (Warsaw, 1928). She added an Appendix on transfinite numbers and her book was published by the University Press in 1934.

This again was an exciting time in Toronto with the arrival of Brauer, Coxeter and Infeld. Beatty had taken over the Chairmanship of the Department and Cecelia's book suggested that we could do more of the same. With the cooperation of the Press, the Mathematical Exposition Series was born in 1940, but it was Cecelia's translation which gave us the idea.

With the founding of the Canadian Mathematical Congress in 1945, Canadian mathematicians had an opportunity to meet each other. At the meeting in Toronto in 1947, Cecelia was invited to Vancouver for the session 1948-49. Later she was offered a permanent position as an Associate Professor with the prospect of further promotion. She enjoyed her stay in Vancouver enormously visiting the Universities of Oregon and Washington and of course, Victoria. She liked the people and greatly appreciated their kindness to her, but she could not tear herself away from her family and the University of Toronto.

About this time, Sierpinski's "General Topology" came out. Cecelia translated it and it appeared as No. 7 in the Exposition Series in 1952. Her book got a long review by R. L. Wilder in Scripta Mathematica which concluded with the sentences "...the book is an elegant piece of work, suitable as a text for the beginning student as well as pleasant and informative reading for the mature mathematician. Both the topologist and the analyst might profit from its inclusion in their libraries."

Cecelia retired officially in 1967, after which she spent a year in Vancouver, returning to Toronto in 1968 to do some Extension courses and teach for two terms at Upper Canada College. She was very happily married to Dr. Dunaj in these later years, who unfortunately pre-deceased her in 1967. She died in August, 1974. As Canada's third Ph.D., she set an enviable record of achievement which her numerous successors would do well to emulate.

G. de B. Robinson
University of Toronto

*****

LETTER FROM LONDON

I want to begin by reporting very briefly on the January meeting of the AMS Council. Blind refereeing was voted in on a trial basis for the Proceedings of the AMS; this is the culmination of a long and difficult struggle. It is my belief that it will result more in the rejection of papers from established mathematicians than in the acceptance of those from unknown mathematicians at less prestigious schools; I think that is the reason the proposal met with such vigorous opposition.

The Society decided to go ahead with studies on the establishment of a special category of foreign associate membership and to abolish all reciprocity agreements with the math societies of other countries; this was a compromise solution to the problem posed by the establishment and later cancellation of the reciprocity agreement with the South African math society.

There was more discussion on what is to be published in the letters section of the AMS Notices--we thought it had been settled at the October meeting that virtually anything not obscene or libelous would go in--with the result that a letter on the UNESCO treatment of Israel will go in. Another old Council battle has been settled outside the Council; we lost our effort to get the AMS not to meet at the Biltmore if they continued to use the label "Men's Grill," but the Biltmore has now dropped the name.

Apparently plans are going ahead for a joint meeting of the AMS and the London Mathematical Society via satellite as part of the bicentennial observance next year.

In spite of the failure of many ballots to arrive for the Council election last fall, a proposal to send them first class was rejected (those outside the US get them first class airmail). So if you do not get a ballot again all you can do is to complain--you cannot vote out those who are disenfranchising you. The next Council meeting is 11 April in St. Louis; it is open to all AMS members so plan to attend if you will be in St. Louis as there should be several items of interest on the agenda, including a report on whether other offices of the AMS should be open to nomination by petition and one from the Committee on Teaching Loads and Class Sizes. See you there!

The AMS Committee on Academic Freedom, Tenure and Employment Security, chaired by Paul Mostert, is currently working on several cases of discrimination against women. This committee needs to be enlarged, preferably by the addition of at least one woman. If you have suggestions, please write to AMS President Lipman Bers.

The AMS hasn't really done anything on the issue of discrimination in retirement benefits, but you will be glad to hear that an Indiana court has ruled that equal monthly benefits must be provided to men and women.

I am enjoying my sabbatical immensely. I want to share some of my impressions on the status of women here. Of course, there has been a great deal of attention given to the new Conservative party leader, Margaret Thatcher. For those of you unfamiliar with the parliamentary system, let me just say that not only does she speak for the party, but if an election were called today, she would be the new Prime Minister if her party won. It is indeed a remarkable achievement for a woman and a comparable one would not presently be possible in the U.S. But it is very much a personal triumph and does nothing for women in general. The British have a long tradition of at least a few women achieving prominence in politics; in particular, it is the usual thing to have women in the cabinet, not a rare event. After meeting Ms. Thatcher, Secretary Kissinger was widely quoted (and shown on TV) delivering the ultimate accolade, "She's quite a girl." Oh well.

Women are much rarer on the academic scene than in the U.S.; there is very little organized movement for equality in the professions. There is an equal pay act which will be in full effect by the end of the year, but as has been pointed out here, so long as women are clustered in job ghettoes an equal pay act will not help much. I think, although it is only an impression, that job stereotyping is about the same here as in the U.S. Many women with families work outside the home and again it is only an impression, but I feel that they get less help around home from the men in their families than women in the U.S. Also, they have to manage with fewer labor-saving devices, although the gap is not as wide as it used to be. The TV commercials--while many fewer--are as awful as in the U.S. and women fare about as badly in the programs themselves.

Over a year one large bank has been running a campaign which I find very offensive; it is ostensibly to convince girls that they will be treated as well as the boys if they come to work there, but my impression is that they are looking for help they can underpay. I see very few women bank managers. The feature I really dislike about the ads is that they assert that the bank doesn't care that the girls are no good at math; they will hire them anyway.

The visible signs of discrimination are all over--jobs are listed for men or for girls--and the underlaying presumptions are expressed more openly than in the U.S. When I called Avis to arrange for a car rental in Italy, after I finished giving my flight number, etc., the woman asked, "And how will the gentleman be paying for the rental?" "Ms" hasn't caught on at all, and most everyone is very persistent about inquiring "Miss or Mrs?" However, I doubt that the actual discrimination is any worse here.

There is a big abortion fight going on; abortion "on demand" has existed for several years by means of a clause which admits the statistical evidence that childbirth is more risky than abortion as grounds for abortion, but the local version of "right-to-life" are trying to get a repressive law passed.

The new proposed Sex Discrimination Bill is alleged to be the most comprehensive in the world (but a proposed bill in Norway calls for prison terms for those convicted of sex discrimination)--it covers not only employment and education, but also housing and the provision of goods and services. It also covers "unintentional discrimination." One clause causing a lot of controversy is that which will open up the midwifery profession to men.

I shall be spending some more time on the continent this spring, so I shall have some word on what goes on there next month.

Mary Gray

*****

THE BERKELEY STORY - continuation. Letter from Smale to Rosenlicht and Gale.

Editor's Note: See the September, 1974 (p.1), November, 1974 (p. 8) and January, 1975 (pp.4,5) Newsletters for background for this letter. At the Washington meetings in January David Gale, Vice Chairman, told Alice Schafer that there were four or five excellent women candidates for positions at Berkeley for 1975-76. He said that as of that moment no appointments, male or female, for 1975-76 had as yet been made.

Max Rosenlicht, Chairman
David Gale, Vice Chairman

6 March, 1975

Dear Max and David:

I am writing you because I feel I must protest some sexist actions of yours in hiring in the math department.

In a January (1975) department meeting you, Max, said that I lied when I stated that the department last year invited applications from women for certain positions when it had already committed itself for those positions to two men. I stand by what I said. In particular, the women who were invited to apply were not told that the department had already made a decision to hire these two men, Drs. Hald and Ogus, for those positions. Eventually, in fact, the University approved of the offers to Hald and Ogus and they accepted.

Last spring, Max, I received a letter from you, distributed to each member of the department, which stated that every woman in applied math who had received her degree in the previous five years had been invited to apply for a certain position. That was false; in fact a main potential candidate for that position, Dr. Lenore Blum, who even had an office in this math department, had not been invited to apply. But worse, math professors at a committee meeting considering applications for that job were told the same thing and were showed only one of two files of Dr. Blum. When three of the attending professors, Hirsch, Marsden and Sarason, disclosed these facts, you threatened to put damaging letters in their files. Marsden even spoke of resigning the University in anger about that.

David, as you will recall, I told you two weeks ago on the phone that from some of your actions I believe that you were prejudiced against women in mathematics. Your letter to each of the regular math faculty yesterday (all men) confirms what I said. On Feb. 27, the department voted 26 to 7 to offer regular appointments to Drs. Marina Ratner and Robert Stanley. The normal procedure would be for you to process these appointments. In fact, your letter I mentioned imposes a completely new obstacle to the appointment of Ratner without precedent in the department history. In the name of affirmative action procedures (what irony) you poll the department with the following question: "I believe that Ratner is superior to, or at least as well qualified as, the other leading candidates for the pure mathematics position." with boxes marked yes and no and space for reasons. The Stanley appointment is not mentioned in your letter.

I find that the imposition of an extra, entirely new, step in processing a woman candidate, and only the woman candidate, a further example of sex discrimination.

I don't mean to imply that you two carry all the blame on these matters of sex discrimination. The University administration has not been helpful. In fact, Dean Moore has supported you, Max, in general, and in particular on the first two of the above three maters (except for the threat against Hirsch, Marsden and Sarason which he opposed).

There is the question of confidentiality. For example, David, your letter I mentioned is marked "CONFIDENTIAL". I feel that too long this question of confidentiality has been used to mask sex discrimination and so I am giving this letter as wide publicity as I can.

Sincerely,
Stephen Smale (Professor of Mathematics)

*****

OF POSSIBLE INTEREST

Money is needed by:

The Women's Lobby, a volunteer group working on national legislation in areas such as child care, tax reform, pension reform, etc. Address: 1345 G Street S.E., Washington, D.C. 20003.

The National Women's Political Caucus, 1921 Pennsylvania Avenue, NW, Washington, D.C. 20006.

The Federation of Organizations for Professional Women, 828 Washington Street, Wellesley, MA 02181. They have categories of contributors, (Affiliates, Friends) so you might want to check to see which one you want to be.

Do you want a job or know of a job . . .

Catalyst is a non-profit organization trying to act as a clearing house for women looking for jobs and jobs looking for people. They publish a roster of job-seekers (identified by number, not name) and if you want to be on it and are a woman over 24 with at least one year of college, write to them at 14 E. 60th St., New York, N.Y. 10022 for the necessary forms.

The Affirmative Action Register lists jobs. It is distributed free to "institutional and organizational minority, female, and handicapped candidate sources", $15 a year to everyone else. Address: 10 South Brentwood Blvd., St. Louis, Mo. 63105.

Need something to read . . .

John Ernest and others at U.C. Santa Barbara has written a booklet called Mathematics and Sex which concisely summarizes the fact about attrition of and discrimination towards women in mathematics. You can get it from him care of the UCSB math department.

The seminar on mathematics and society held at Orsay we mentioned last time has been published. It includes four articles on women in mathematics and can be obtained from Université Paris XI, U.E.R. Mathématique, 91405 Orsay, France. Title: Mathématiques, Mathématiciens et Société.

"I Can Be Anything: Careers and Colleges for Young Women" is aimed at high school and college students. The 90 careers range from athlete to plumber. $4.50 paperback, $6.50 hardcover from College Board Publication Orders, Box 2815, Princeton, N.J. 08540.

Garrett Park Press, Garrett Park, Maryland 20766 has a Directory of Special Programs for Minority Group Members, with a special section of women.

JR

*****

EMPLOYMENT OF WOMEN IN MATHEMATICS DEPARTMENTS

by Judy Green, Member, Executive Committee

In its October 1974 NOTICES the AMS published its eighteenth annual survey of faculty salaries (pp.255-259). In this survey not only salaries but sizes of faculty for 1973-74 and 1974-75 were listed, as were the number of women on the different types of faculties. It is therefore possible to see that in most instances the percentages of women in the mathematics faculties of American colleges and universities are going DOWN. What appears below are the percentages of women on the total faculty within the same classification (with or without a doctorate) at various types of institutions. The doctorate granting departments are divided into six groups as follows:

I: the 27 most prestigious departments
II: the 38 next best departments
III: the rest of the American mathematics departments
IV: statistics, biostatistics and biometric departments
V: departments of mathematical sciences not included above
VI: Canadian departments

	percentage of women on faculty		percentage of women on tenured faculty	
	1973-74	1974-75	1973-74	1974-75
Doctorate granting				
I (only faculty with doctorates listed)	3.3	2.8	2.4	2.2
II without doctorate	29.0	28.0	14.3	14.3
with doctorate	4.9	4.6	4.0	3.6
total	5.6	5.1	4.1	3.7
III without doctorate	25.3	23.6	26.5	22.8
with doctorate	4.5	4.7	3.9	3.6
total	7.4	7.1	6.8	6.0
combined I, II & III				
without doctorate	25.8	24.1	25.9	22.4
with doctorate	4.3	4.2	3.5	3.3
total	5.9	5.5	4.9	4.4
IV without doctorate	0	40.0	0	0
with doctorate	3.0	3.4	1.4	1.1
total	2.9	4.7	1.4	1.1
V (only faculty with doctorates listed)	3.4	5.0	1.3	1.7
VI (only faculty with doctorates listed	1.7	2.1	1.8	1.2
Masters granting				
without doctorate	24.2	23.0	19.9	18.8
with doctorate	7.1	7.4	7.4	7.3
total	12.8	12.3	11.9	11.1
Bachelor granting				
without doctorate	21.5	21.8	18.7	18.9
with doctorate	9.9	11.1	9.9	10.2
total	15.2	15.7	14.2	14.4

	percentage of women on faculty		percentage of women on tenured faculty	
	1973-74	1974-75	1973-74	1974-75
Combined doctorate, masters and bachelor granting	9.1	9.0	7.9	7.5
Two year colleges				
without doctorate	19.2	19.2	14.7	14.8
with doctorate	13.2	12.0	8.8	10.3
total	18.6	18.5	14.2	14.5

*****

JOBS

The vacancies listed below appear in alphabetical order in an alphabetical listing of states. Thanks are due to Maxine Bridger who has handled this portion of the Newsletter for this and the previous issue.

University of Arkansas at Little Rock. Position available 25 August, 1975, requiring Ph.D. with background, interest and experience in Operations Research, Applied Statistics, or Applied Mathematics with ability to teach either Fortran or Cobol. 12 hr./wk. undergraduate teaching load with 6 weeks summer teaching usually available. Salary and academic rank negotiable. Send vita to University of Arkansas at Little Rock, Department of Mathematics and Computer Science, Little Rock, Arkansas 72204 attn: John R. Hodges, Chairman. U.A.L.R. is an Affirmative Action/Equal Opportunity Employer.

Harvey Mudd College. Intructor/Assistant Professor of Mathematics. Ph.D. in math or reasonable expectation of same by June 1976 required. Applicants with Ph.D. must have record of continued research accomplishments since receipt of degree. Also, at least one year's experience teaching at calculus level or above to undergraduates. Submit personal history and 3 resumés by April 1 to: Professor John Creever, Chairman, Math. Dept. Harvey Mudd College, Claremont, CA 91711.

California State University, Chico. Assistant Professor of Mathematics. Ph.D. required, however non-Ph.D. mathematicians will be considered if they are working toward a Ph.D. and have had experience or other training making them competitive. Preference given to candidates in fields of Abstract Algebra, Category Theory or Mathematics Education. Submit resumé by April 11 to: Everett Riggle, Chairman, Dept of Math, California State University -Chico, Chico, CA 95926.

California State College, Sonoma. Temporary position at assistant professor level. Ph.D. or equivalent experience required. Primarily interested in persons with high potential for excellent teaching; however, first consideration given to candidates with background in computer science or statistics, preferably both. Contact: W.J. Barnier, Chairman, Dept of Math, California State College, Sonoma, Rohnert Park, CA 94928.

University of Miami. Associate Dean for Research, Rosenstiel School of Marine & Atmospheric Science (RSMAS) Requirements: Ph.D. in relevant scientific or technical field; at least 3 years research experience after Ph.D., at least 5 years experience science administration in university and/or government agency. Responsibilities include coordinating RSMAS research activities, providing liaison with funding agencies, assisting in research program development, developing and coordinating inter-divisional projects 26M - 32M. Contact: Mr. R. Paul Young, Affirmative Action Coordinator for Academic Affairs, University of Miami, P.O. Box 248033, Coral Gables, FL 33124. Phone (305)284-6902 by 6/1/75.

Indiana Army Ammunition Plant, Programmer (1) and Systems Analyst (1). For position of programmer: 3 years experience as programmer/analyst with major emphasis on Manufacturing Systems. Experience with IBM 360, 370 or Honeywell Systems (model no. >1200). Must have COBOL, assembly language an added plus. 10 - 14 m. For position of Systems Analyst: 3 yrs experience Programmer and 2 yrs as Analyst in manufacturing environment. Experience in Production Control, Bill of Material Processor, Inventory Control. Must know medium-to-large scale computers and associated operating systems, as well as COBOL. 12-16m. Resumés should contain contact information, salary history and requirements and be sent to: R. L. Miller, ICI United States, Inc. P.O. Box 365, Charlestown, IND 47111. Please indicate for which position applying.

DePauw University. One-year appointment as Assistant Professor for Ph.D. perferably with specialty in applied mathematics or computers. There is a chance of renewal, but tenure in not possible. 12 hour teaching load, salary $10,000. Contact: Clinton B. Grass, Head, Dept of Math, Astronomy and Computer Science, DePauw University, Greencastle, IND 46135.

University of Iowa, University Computer Center Director. Responsibilities include the promotion of computing in instruction and research within the University community. Preferred qualifications include a Ph.D. in Computer Science or a related field or the equivalent combination of education and background. Applicants should have extensive technical and administrative experience in an academic computing environment. Send letter and resume, by May 1 to: Vice President D. C. Spriestersbach, The University of Iowa, Iowa City, Iowa 52242.

Clark University. Position of Assistant Professor. Requires Ph.D. and evidence of competence in both teaching and research. Areas of specialty: group theory, topology, logic with experience in category theory desirable. Teaching duties equal to 6 - 8 hours per week. Salary commensurate with qualifications. Write to Professor Robert Kilmoyer, Clark University, Worcester, MA 01610.

MIT: Assistant Professor of Mathematics. One position. They hope to appoint an assistant professor in pure or applied mathematics if a sufficiently strong candidate can be found. Criteria are: (i) superior ability as a research mathematician, (ii) demonstrated effectiveness as a teacher, (iii) two years or more of post-doctoral experience. Write to: Chairman, Pure Mathematics Committee, Massachusetts Institute of Technology, Cambridge, MA 02139.

Mount Holyoke College: One Position: Assistant Professor, Mathematics, three semester appointment, beginning January 1976. Contact: Harriet Pollatsek, Chairman, Dept of Math, Mount Holyoke College, South Hadley, MA 01075.

Michigan Technological University. Visiting Faculty Member in area of computer engineering. Applicant should have doctorate or equivalent; academic or industrial experience desirable. Rank commensurate with qualification. Send resume to Dr. R. F. Schwartz, Head, Dept of Electrical Engineering, Michigan Technological University, Houghton, Michigan 49931.

University of Missouri-St. Louis, St. Louis, Missouri 63121. Four positions at Assistant Professor level. One position in computer sciences, one in statistics and the other two positions in either differential geometry, algebraic geometry, or several complex variables. Contact Math. Dept.

Wheelock Laboratory School, Keene State College. Director of Title III Project (3 yrs.) "Aesthetics for Children and Teachers." Must have completed a degree program in aesthetics education, teacher education or an area of the arts, and must have demonstrated successful experience in working with children and teachers. Send resume and placement file, by April 15 to: Mr. George J. Bergeron, Principal, Wheelock School, Keene State College, Keene, NH 03431.

Polytechnic Institute of New York, Dept of EE has faculty openings at various levels in the areas of Computer Science, Communications and Semiconductor Electronics. Research and teaching abilities essential. Send resume to: Professor Theo Tamir, Head, Dept of Electrical Engineering and Electrophysics, Polytechnic Institute of New York, 333 Jay St., Brooklyn, NY 11201, 212-643-5000.

Polytechnic Institute of New York, Dept of Math. Position at rank of Assistant Professor is available for a statistician in Applied Statistics or Mathematical Statistics. Applicant should have interest in both teaching and research. Send vita and have 3 letters of recommendation submitted by May 1 to: Dr. Harry Hochstadt, Dean of Arts and Sciences, Polytechnic Institute of New York, 333 Jay Street, Brooklyn, NY 11201. 212/643-5000.

State University College, Fredonia, NY. Faculty position. Ph.D. in Computer Science or sufficient experience to adequately teach courses in Assembly Languages; Programming Languages and Data Structures, required. Salary and rank negotiable. Contact: Frank R. Olson, Chairman, Dept of Math, State University College, Fredonia, New York 14063.

Wittenberg University. Assistant Professor of Mathematics. Sabbatical replacement for the 1975-76 academic term but may be extended. Preference will be given to candidates with the Ph.D. with experience in computer science, and who show particular aptitude for undergraduate teaching in a liberal arts college. Address inquiries to: Eric L. Wilson, Chairman, Dept of Math., Wittenberg University, Springfield, OH 45501.

Bucknell University, Math. Dept. Ph.D. in mathematics or statistics in 1975 or earlier required. Applicant must have broad background in mathematics and be qualified to teach upper and lower division courses in statistics, as well as strong commitment to teaching and high research potential. Position potentially permanent and tenurable. Send curriculum vitae, graduate transcript and three letters of recommendation (at least one from thesis advisor or someone who can comment on research record and potential and at least one from someone who can speak to potential as teacher) to: David S. Ray, Chairman, Dept of Math, Bucknell Univ, Lewisburg, PA 17837, 717/524-1343.

The Wharton School, U of Penn. One or two permanent positions at Assistant Professor level and a one-yr visiting appointment in newly formed Decision Sciences Dept. Requirements: Ph.D. (or near completion of such) in Information Systems, Operations Research, Operations Management or Decision Sciences. Strong research interests and teaching ability are essential. Apply with curriculum vitae and names of references to: Dr. E. Gerald Hurst, Jr., Chairman, Dept of Decision Sciences,

The Wharton School, University of Pennsylvania, Philadelphia, PA 19174.

University of Texas at El Paso, Assistant Professor Dept of Accounting. Doctorate preferred, but ABD will be considered. Department is flexible, however, it needs strength in tax, auditing, EDP and all graduate areas. Submit vitae to: G. R. Bovard, Chairman, Dept of Accounting, The Univ. of Texas at El Paso, El Paso, Texas 79968.

Washington State University. Assistant Professor in Computer Science Dept. Ph.D. preferably in Computer Science is required. While all individuals who apply will be considered, the order of preference for areas of research by the applicant are: File Structures, File Management, and Data Base Management Systems; Operating Systems Principles; Programming Languages; other areas. Resumés and the names of at least 3 references should be sent to: W. E. Walden, Computer Science Dept., Washington State University, Pullman, Washington 99163.

Marshall University. Assistant or Associate Professor in Mathematics Education with responsibilities including: teaching graduate and undergraduate courses in math ed, supervising math lab, participating in program development and departmental research, maintaining communication with public school participating agencies, etc. Qualification: Doctorate (or reasonable assurance of completion date) with graduate course work in math and public school teaching experience with college teaching experience desirable. Send applications and credentials to: Dr. Danny G. Fulks, Director, Elementary/Early Childhood Education, College of Education, Marshall University, Huntington, West Virginia, 25701.

Marshall University, Assistant/Associate Professor in marketing. Applicant must hold Ph.D. or D.B.A. with emphasis in marketing and hopefully some practical experience. Apply by April 18 to: Dr. William F. Ashford, Chairman of Marketing Dept., College of Business and Applied Science, Marshall University, Huntington, West Virginia 25701.

University of Wisconsin-Parkside: (2) Assist. Prof. in Math. One position requires Ph.D. in Statistics or Mathematics with major field Statistics, or Probability/Statistics. The other position requires Ph.D. in mathematics with major field Discrete Groups or Lie Algebras or Non-numeric Computing or Applied Mathematics. Resumé with three letters of recommendation should be directed to: Professor R. W. Gatterdam, University of Wisconsin-Parkside, Science Division, 355 Greenquist Hall, Kenosha, Wisconsin 53140.

University of Wisconsin-Parkside. Visiting Assistant Prof of Mathematics. Requirements are a Ph.D. in mathematics or philosophy with demonstrated competence and active interest in both teaching and research. Area of specialty should be Foundations and/or History of Mathematics. Inquiries, or resumé with 3 letters of recommendation should be directed to: Professor R. W. Gatterdam, University of Wisconsin-Parkside Science Division, 355 Greenquist Hall, Kenosha, Wisconsin 53140. Deadline: May 1.

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.

*****

ADDENDUM TO ARTICLE

Some Contributions of Women to Research in Finite Group Theory in September 1974 Newsletter

The name of Patricia A. Tucker should have been included in the list of women who have published articles on some aspect of finite group theory since 1960. In the bibliography at the end of that article the following should be added.

Tucker, Patricia A. (Now Patricia Tucker Montague)

On the reduction of induced representations of finite groups. Amer. J. Math. 84(1962), 400-420.

Note on the reduction of induced representations. Amer. J. Math. 85 (1963), 53-58.

On the reduction of induced indecomposable representations. Amer J. Math. 87 (1965), 798-806.

Endomorphism ring of an induced module. Michigan Math. J. 12 (1965) 107-202.

Betty Salzburg Stark

*****

This publication is on file at the Women's History Library, 2325 Oak Street., Berkeley, CA 94708.

BERKELEY STORY -- Another Continuation (See pp.6-7 pf this Newsletter.)

The issue raised in the letter of March 6, 1975 by Stephen Smale to Max Rosenlicht and David Gale of the Berkeley Mathematics Department has been placed on the agenda of the AMS Council meeting to take place on April 11 in St. Louis.

*****

THEY'VE DONE IT AGAIN DEPARTMENT

The President's Office of the American Mathematical Society explained that the reason Cecilia K. Dunaj's death notice in the January NOTICES did not carry her age was that their records, and other records they were able to obtain, did not list her birth date.

In the Death notices of the April AMS NOTICES (p. 162) the only person whose age is not mentioned is Lucy Blackwell. She happens to be the only woman listed! So, women, put your birth date on your application for membership in learned societies so that at least in death you can be treated like the men!

*****

COMING IN THE MAY-JUNE NEWSLETTER

Report on the AMS Council meeting in Washington, D.C. by Mary Gray.

Report on the AWM meeting in Mobile in March.

Report on the AWM meeting in St. Louis in April.

Copy of speech by Lenore Blum at Washington AWM meeting.

Copy of speech by Harold Stark at Missoula AWM meeting.

Letter from Europe by Mary Gray

*****

ELECTION BALLOT

For Representative from the South, 1975 - 79:

Anne Leggett, University of Texas, Austin
H. Christine Stokes, University of Mississippi
Betsey Whitman, Florida A and M University

Please cross out the names of those for whom you do not vote. Return ballot to Alice T. Schafer, Department of Mathematics, Wellesley College, Wellesley, MA 02181, by May 15, 1975.

*****

FORM FOR NOMINATION OF OFFICERS of AWM

For Representative from the West, 1975 - 79:

For Treasurer/Editor of the Newsletter, 1975 - 77:

Please submit your nominations, self or otherwise, for the above offices to Alice T. Schafer, Department of Mathematics, Wellesley College, Wellesley, MA 02181, by May 15, 1975.

An election ballot will appear in the May-June Newsletter. If a runoff election is necessary, a second ballot will appear in the July-August Newsletter.

*****

Please check your mailing label on this Newsletter to see if your membership dues should be paid now.

2/75	Membership Expired
3/75	Membership Expired
4/75	Membership Expires
5/75	Membership Expires
X	Dues not paid since 1972
Y	Dues not paid since 1973

ASSOCIATION FOR WOMEN IN MATHEMATICS
MEMBERSHIP APPLICATION

New _____

Renewal _____

Name _____
Address _____

_____

_____

_____

Institutional affiliation, if any _____

Position _____

Individual _____
($1.50 to Oct. 1,1975)
($5.00, Oct. 1, 1975-
Oct. 1, 1976)

Family _____
($2 to Oct. 1, 1975)
($6, Oct. 1, 1975-
Oct. 1, 1976)

Retired or Student _____
($1 to Oct. 1, 1975)
($2, Oct. 1, 1975-
Oct. 1, 1976)

Institutional _____
($10.00)

Contributions welcome
and needed.

Make checks payable to and mail to

ASSOCIATION FOR WOMEN IN MATHEMATICS
Alice T. Schafer
Department of Mathematics
Wellesley College
Wellesley, MA 02181

AWM
Department of Mathematics
Wellesley College
Wellesley, MA 02181

April 1975