The January meeting
The resolution which was introduced by the AWM at the meeting last summer is on the agenda of the business meeting, Wednesday, January 19, $2: 30 \mathrm{p} . \mathrm{m}$. All AWM members should try to be there and should urge those who share the goals to come also. AWM will have a meeting at 5:30 p.m. on Tuesday, January 18. The chairman will be staying at the Sahars and may be contacted there.
Women in mathematics--the image problem over and over one hears, "Why are there so really first-rate women in mathematics?" Were Lefschetz and others right in their contention that women cannot do mathematics and that having them around was a waste of time? More probably, statements such as his are of the nature of a self-fulfilling prophecy. From early childhood women are told that they are not expected to be good in math and there is no social stigma attached to lack of success in the subject--quite the contrary in fact. Thus their early superiority gradually fades until we have the situation today; it is not necessary to quote any more statistics on how bad it is. However, it is not fair to blame everything on a lack of encouragement. Women's self-image has a lot to do with it. While it is important to let girls see that they can achieve professional satisfaction, it is also the case that for many women parttime jobs or no jobs at all represent their choice of fulfillment; it is of course devoutly to be hoped that whatever they do they will do it well. What, however, about the women who want to be fulltime research mathematicians with positions at prestigious institutions and who, at least when they are in graduate school, seem capable of doing really good mathematics? It seems that the crucial years are the first few after receipt of a Ph. D. Women need appointments at goods schools with low teeching loads and lots of mathematical stımulation, access to Sloan fellowships, etc. Then they need to be taken seriously, to be encouraged to think of themeelves as mathematicians.
Vitae
Even if you are not looking for a job, the AWM could use a copy of your vita. There are many requests coming in for recommendations for committee members in other organizations, review panels and other government advisory positions. To maintain credibility it is necessary to have names, backed by information, to suggest.
Reader comment
Several readers have pointed out that the AWM should try for an alliance with NAM rather than risk offending them by criticizing them for having chosen a man for president and a woman for secretary. Certainly no offense was intended and an alliance should prove beneficial to both. If someone would volunteer to work on this, it would be great. More on the idea later. However, the fact still remains that too often women are stuck with secretarial duties. Someone noted on the other hand that powerful secretarial positions, e.g., AMS, MAA, UN, are held by men. Perhaps women should try for these jobs.
There has been quite a lot of feedback on the comment regarding Professors Taussky and Stone. Quite clearly issues such as this have two sides and letter writers seem almost evenly divided. Considering the paucity of women in leadership positions, some feel that visibility is a big goal-we simply need capable women to whom we can point. Others think that appointing or electing just any qualified woman is self-defeating. They fill up the "quota" slots without doing anything positive for the majority of women, without being activists for women's rights. This is part of a bigger problem within the AMS, the question of advocacy and involvement. Meanwhile, it remains to be seen what the women Council members will do.

The best comment was from Margaret Maxfield. Responding to the announcement that AWM is open to mathematicians "regardless of sex", she signed up her husband in the organization even though he "regards sex and regards it highly."
AMS committee on women
Although the committee has yet to meet, it does have its full membership with the addition of Professor Morrey of UC Berkeley. Professor Morawetz has designed a questionnaire to be sent out to women mathematicians. It is really not clear why it is being sent or what is to be done with the information gathered. A common complaint at the AAAS symposium on women was the endless surveying without any positive action. Periodically another university or another government agency or another professional organization will conduct a survey and find--10 and behold--there is discrimination. More on this later.
It is of interest to note that as far back as July 1969 Professor Lee Lorch of York University proposed the establishment by the AMS of a committee of women mathematicians to study problems of discrimination. (This proposal was contained in a letter to the Notices which the AMS Council voted not to allow to be published.) To note progressProfessor Lorch also points out that the highest honor the AMS has so far accorded to a woman was to have Anna Pell Wheeler as a colloquium speaker-over 40 years ago!
Perhaps the time has come for a woman as AMS president. This would probably require a reorientation of the organization away from elitism and into activism. It can be argued that elitism is a good thing, that the AMS should exist only to promote excellence in research, that it should be controlled by a few white middle-aged men from a handful of schools. On the other hand it can be contended that the AMS should represent the mathematical community as a whole and promote its interests. In particular, if that community in the past has not only neglected its responsibility for minorities and women but has actively supressed them, then perhaps it should actively work to remedy the situation it has helped to create. The Mathematics Action Group is sponsoring a panel on elitism the night of January 19.
Professor Young wrote recently that he felt, after having served as MAA president, that it should never have been formed. He deplored the fragmentation of mathematics organizations necessitated in the first instance by the refusal of the AMS to broaden its concerns. Most other disciplines have only one organization speaking with a more or less united voice on issues of concern--such as federal funding, the job situation,etc. Then it might become necessary to elect officers on the basis of concern and ability to do something about it rather than solely on research ability. The Modern Language Association will have a woman (without a Ph.D。) who is noted for reform as president. The very conservative American Chemical Society elected an insurgent candidate as president on the employment issue. This is of course becoming critical in the mathematical community and many people feel that the AMS is doing little except collecting statistics. Since the problem is not too great among tenured full professors at prestigious institutions, this is not too surprising. In a recent Conference Board of the Mathematical Sciences newsletter figures showed that unemployment among those listed in the scientific manpower register had almost doubled (to 2.6 percent). However, for those under 30 it was 5.3 percent, but the comment was that this sas probably much too low as the sample was not representative. The AMS could at least run an employment register less demeaning to the apnlicants.

Other organizations
Report on the AAAS symposium on women in academe
Under attack from women who claimed that HEW is dragging its feet on contract compliance investigations concerning sex discrimination，J． Stanley Pottinger，head of the civil rights office of HEW，claimed that his office is an advocate for minority groups and women and that he is not in collusion with university officials to prevent reform．He cited several examples of contracts being held up and said that several universities are currently facing fund cutoffs． Apparently more priority is being given to class－action complaints than to individual ones，in particular if the Congressmen in the state involved are deluged with letters asking them to prod HEW．For more information or help in filing complaints，write Margaret Gates， 1504 44th St．，NW，Washington，D．C． 20007.
Several representatives of universities told of surveys which pin－ pointed discrimination on their campuses and explained what they proposed to do about it．An ingredient of most affirmative action plans is some sort of procedure to require all appointment forms to be accompanied by details of the search conducted for minority and women candidates for the position．Supposedly they are not to be approved if the recruitment efforts were insufficient．The suspicions of most women were confirmed when Professor Elizabeth Scott，chairman of the statistics department at UC Berkeley，reported that to test the system she included no information on attempts to recruit minority group members or women on appointment forms for her department and they went through without any difficulty．She also spoke of establishing short and long term goals in hiring women．As a short term goal one looks at the percentage of $\mathrm{Ph} . \mathrm{D}$ 。＇s a department grants to women and requires at least that large a percentage of women faculty at all ranks． For example，since Berkeley and MIT each have awarded about 5 percent of their recent $\mathrm{Ph} . \mathrm{D}_{\mathrm{D}}$＇s to women，each should be required to have that percentage of women in each rank．MIT has no women at all and Berkeley just hired one assistant professor．
Dr．Julia Apter of the Rush Medical School reported that a group of women scientists were able to get Secretary Richardson to agree that future appointments to NIH advisory and review panels would be women if qualified ones are available until the current 3 percent rises to $331 / 3$ ．Now she is working furiously to find qualified women．The same group has tried to get NSF and other agencies to agree to a similar scheme but so far with no success．The AWM has also had little success with NSF，primarily because they are very secretive．The current plan is to get lists of grantees and grant review panelists and to provide names of women qualified to serve as panelists．If the information is not forthcoming Congressional pressure may be necessary． The AAAS passed a resolution similar to the one before the AMS but calling in addition for the establishment of an office within the AAAS dealing with women＇s affairs．in particular to maintain a roster of women scientists．It will be headed by two professional women．A women＇s caucus of the AAAS was also established．
Professional Women＇s Caucus
This organization is independent and composed primarily of academic women and lawyers．It is headed by Sheil Tobias，Associate Provost，Wesleyan University，Middletown，Conn。 06457，who provides a clearing house for academic administrative positions．The PWC is compiling information on the harrassment and firings of women who have participated in actions involving sex－discrimination。

R: ster of academic women
Ürder the direction of Patricia Graham of Columbia, a group of women is meeting to prepare a proposal for presentation to the American Council on Education. It will request funds for maintaining a roster of professional women throughout the country.
Council of Graduate Schools
It happened that the CGS was meeting at the Washington Statler Hilton at the same time as the national convention of the Women's Equity Action League. Since there was no discussion scheduled on the problems of women, Doris Sassower brought up the subject in an open meeting. She was curtly dismissed, but is working on a presentation for next year. Write to Doris Sassower, 75 Wykagyl Station, New Rochelle, N.Y. 10804. Incidentally, the $500^{+}$deans at the CGS meeting included only 2 or 3 women.
Women's Equity Action League
This is the group which has been primarily responsible for filing the complaints with HEW. A current project is an investigation of banks-employment and credit policies. The usual technique is a letter from a depositor making polite inquiry, followed up by publicity and threats to withdraw funds if the response is unsatisfactory. Professor Barbara Osofsky of Rutgers has passed along the following:

Women who have applied or are interested in applying for teaching or administrative positions at a college or university in New Jersey are urged to send a duplicate copy of their resume to the New Jersey chapter of the Women's Equity Action League。 WEAL will act upon each individual case in whatever manner is deemed appropriate. Where possible, a WEAL member at the college and/or department in which the candidate is interested will be alerted that she has applied there If WEAL is aware of another opening in the state for which the candidate is qualified, WEAL will inform the candidate of that opening. In the case of an exceptionally well-qualified candidate, WEAL will send a letter to the appropriate dean expressing pleasure that a person of this caliber is willing to relocate in New Jersey. The candidate is asked to send two dollars to cover postage and clerical expenses. (Checks may be made payable to WEAL.) The resume should be sent to Law Offices, Ruth Russell Gray, 517 Central Avenue, Plainfield, N.J. 07060 .

## Publications

The Foreign Language Publishing House in Moscow has put out a translation of a biography of Sophia Kovalevskaya. Although its literary merits are not great, it is extremely interesting. Kovalevskaya worked on gyroscopic motion and the 3 -body problem, among other things, but was never able to get a post in Russia; in fact she also studied abroad, under Weierstrass and others, since Russian universities were not even open to women as students. Mittag-Leffler finally secured a position for her at Stockholm; his sister. Anna-Charlotte Leffler, has written a memoir of Kovalevskaya. It is of note that it took 50 years after Kovalevskaya to get a second woman doctor of science in Sweden. Veselvosky, the secretary of the Russian Academy of Sciences, in refusing to intervene to obtain a post for her in Russia when she wanted to return from Stockholm said. "A woman could be elected to a university chair only as a result of an especially high and quite exceptional opinion of her ability and knowledge." Have things changed? The best newsletter on women's issues is Women Today, Today Publications, National Press Building, Washington, D.C. 20004. Law and Women, also in the press building, put out a good booklet "Fighting Job Discrimination." It costs one dollar. KNOW,Inc., Pittsburgh, Pa。15232, has all sorts of publications on women's issues and women's studies programs.

For those concerned with fighting the image problem at an early age，get a list of children＇s literature，＂Little Miss Muffet Fights Back＂for 50 cents from Feminists on Children＇s Media，P。O．Box 4315，Grand Central Station，N．Y．，N．Y．10017，Attn．L．Webster．There is also a new group whose catalogue is available：Feminist Press， 5504 Greenspring Ave．，Baltimore，Md．21209．AAUW has a very informative booklet available： 2400 Virginia Ave．NW，Washington，D．C．

## Tenure

There are two prongs to the thrust for tenure reform．One is to demand a longer probationary period for women and others on parttime appointments and the other is to ask for periodic review of tenured faculty with the possibility of early forced retirement．See an editorial by Florence Moog，Science， 3 December 1971.
Employment
The University of Pittsburgh has positions open and is soliciting appli－ cations from women．Write W．E．Deskins，Dept。 of Mathematics，U．of Pittsburgh，Pittsburgh，Pa。15213．
Portland State University，Portland，Ore．97207，has five positions in its computation center and would like to have women．Three positions require an M．A．or $\mathrm{B}_{\mathrm{o}} \mathrm{A}_{\circ}+$ and are for programmer－analysts．The other two are faculty－type posts and require a Ph．D．or A．B．D．One is to manage the academic side of the center and the other the systems applications．Craig A．Magwire，director of the center，prefers candidates whose most recent degree was $3-5$ years ago and who have 3－5 years experience，but will consider other sharp candidates． The positions are open now and must be filled before July 1， 1972. P．O．Box 751，Phone（503）229－4441．
Vassar needs a recent $\mathrm{Ph} . \mathrm{D}$ 。 or near Ph 。D．as assistant professor or instructor in computer science．Write Winifred Asprey，director of the computer center．
IBM has research fellowships for 1972－1973．Write Alan J．Hoffman， Math－Science Department，T．J．Watson Research Center，P．O．Box 218， Yorktown Heights，N．Y． 10598. There are openings for lecturer and assistant professor at Baruch College． Write：Harold Shane，Baruch College，CUNY， 17 Lexington Ave．NoYo，NoY． 10010．By the way，in the first issue of Ms the critique of Lindsay as a presidential candidate criticizes him for doing nothing about the very sexist policies in CUNY and its governing body．Maybe some letters from the states in which he has entered primaries，as well as from New York City，might sensitize him．
To apply for open positions at State University College，Genesco，N．Y． 9 write Dr．William Small．
Sangamon State University，a new school，is seeking persons to teach interdisciplinary programs．One emphasis they want is numerical analysis and systems analysis．Write Robert J．Batson，Director of Recruitment， Sangamon State University，Springfield，Ill． 62703.
There are two administrative vacancies at Russell Sage College（for women） at Troy，New York．They need a vice－president for student affairs and a director of development．Write this newsletter for more details or write directly to Charles U．Walker，President，Russell Sage College， Troy，N．Y．12180，Phone（518）270－2214．
The following universities have all recently had internal reports on discrimination and as a result have come up with plans which include increasing the percentage of the faculty who are women；they have instituted review processes which are supposed to assure that legiti－ mate efforts are made to find women and minority group members．

University of California
Berkeley, Calif。 94720
John W. Addison, chairman

University of Pennsylvania
Philadelphia, Penn. 19104
Eugenio Calabi, chairman
Harvard University
Cambridge, Mass.O2138
John $T$, Tate, chairman

University of Maryland (Maryland needs an algebraist and/or math historian) College Park, Md. 20742
Adam Kleppner, acting chairman
Professional organizations in political science, economics, history and other fields have passed resolutions committing themselves to improving the status of women. One frequently used tactic is to require open listings with the organization of all vacancies at all levels. It is no news to anyone that the "buddy" or "old boy" system is the most frequently used method of filling jobs, especially at the top schools, nor is it news that this is discriminatory against all sorts of groups. If the AMS leadership, representing as it does the top schools, would really back this for mathematics it could easily be set up.

## Grants

The Monticello Foundation, Godfrey, Illinois, is supposedly been set up to fund projects having to do with women. Are there any volunteers to apply to this foundation and/or others for funds to prepare some material for use in schools and colleges? The brochures would describe opportunities available for women in mathematics, the careers of some past and present women mathematicians, etc.
NSF and other granting agencies are allowed to make grants for research directly to mathematicians not associated with universities, e.go, those who are unemployed. A spokesman reports that no applications have been received from unemployed persons, but if you cannot find a job, why not try to get a research grant if you can do mathematics? If you would like to assist in finding qualified young women mathematicians and then persuading ex-Sloan fellows to recommend them, a list of fellows is available. Of the 190 in mathematics nearly half come from 6 schools; none is a woman (one has gone to a woman in applied math/ physics).
Legislation
The Equal Rights Amendment comes before the Senate this month. It would give the force of law to many of the things women want. However, it may be crippled by amendments which allow "reasonable" distinctions on the basis of sex. Write your Senators.
The Green higher education bill goes to conference with the ban on discriminatory undergraduate admissions removed, due primarily to a letter from Derek Bok, president of Harvard, who alleged that admitting women on an equal basis would be a disaster because 1) they would not use the science facilities and 2) they would contribute less as alumnae. Owen Kieley of the HEW office of contract compliance sent representatives to investigate TIAA's policy of paying less in annuilies to women in spite of equal contributions. TIAA justifies this on the basis of general life expectancy tables which may not be valid for women college faculty. Moreover, they do not make distinctions on the basis of race or smoking history, both of which are eaily justified by tables. Results of the Kieley investigation are not yet known. Group life insurance rates are
same for men and women under TIAA in spite of the figures used to justify the lower annuity payments. . The president of TIAA states that the New York insurance commission, under which they operate, has recently altered its regulations to permit a sex differential in group life insurance rates We are waiting to see what TIAA will do.
Textbooks
One member suggests that not only are there very few math texts by women (see previous newsletter), but many texts are sexist. She opts for a women rowing the boat on which the lighthouse beacon is fixed, etc

## A Report on Nepotism Regulations by Anne Koehler

The purpose of this report is to help women who would like to try to change the nepotism policies of a university. Hopefully, this paper will provide these women with new facts on what has been done and how to obtain further information.
I. Methods of attack
A. Work within the university system

1. Give the facts of the recent changes and the reasons they were made (see part II) to your university's administrators and ask them to reconsider their position.
2. There may be a committee of the Faculty Senate which would be willing to consider the problem.
3. Ask various groups for support in the form of helping to collect facts or sending a statement in your favor to the administration. Not all groups will help, but it seams to be useful to have many people talking about the problem
a) AAUP has a new national policy which calls for an end to nepotism rules.
b) AAUW has new national guidelines which call for an end to nepotism rules.
c) Sigma Xi (or other professional organizations)
d) Phi Beta Kappa
e) Mortar Board
f) YWCA
4. Write or have written articles for newspapers. It is a good idea not to cause the university embarrassment at first.
B. A state government should have an Equal Rights Division or a Women's Division in their Department of Labor: One could file a complaint with such an agency.
C. Discrimination complaints can be filed with the U.S. Department of Health, Education and Welfare against institutions of higher education. HEW has been appointed by the Department of Labor as the enforcement agency for colleges and universities for Executive Order 11246 as amended by Executive Order 11375. This order forbids discrimination by federal contractors (with at least 50 employees and 50,000 dollars of federal contracts) because of race, color, religion, sex, or national origin.

For such a complaint to be successful one should show a pattern of sex discrimination rather than writing only about a nepotism policy. Inequity in salaries, bunching of women at low academic ranks, unfair processing in the hiring of staff and faculty, unfair admission policies, lack of women in administration, and fringe benefits which are denied to women are some of the areas which can be included.

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The Women＇s Equity Action League（WEAL）has helped file more than 300 complaints against colleges and universities．For further information on filing complaints，contact Margarent Gates（see p．3）．

D．It appears that a lawsuit can be successful in at least some cases．A lawsuit has reached the federal courts in Arkansas． Also，ACLU is about to file a suit in Illinois．Heather Sigworth can provide further information on these two lawsuits and on the Arizona case（see part II）．She is the chairman of the WEAL committee on combatting nepotism regulations．One can write her at the Indiana Law School， 735 West New York Street．Indianapolis，Ind。 46202 ．For three dollars one can obtain her paper，＂The Legal Aspects of Sex Discrimination Against Faculty Women，＂＇

The Higher Education Bill of Congresswoman Edith Green contains an amendment which will extend the 1964 Civil Rights Act to women in higher education。 You could write your Congressman to ask for a copy of the bill and for the testimony delivered in June 1970 before Green＇s Special House Subcommittee on Higher Education with respect to section 805 of HR 16098。Green＇s legal counsel，Harry Hogan，may be able to answer the question of how effectively the bill will deal with nepotism if it is passed．
II．Specific examples of what has and is being done
A．Ohio State University
The wives at Ohio State obtained a new rule without resorting to outside agencies．It took approximately 6 months for them to convince the university to change its policy．The rule was changed in February 1971．There are now wives who，for the first time，have regular appointments in the same departments with their husbands．

B．Miami University（Ohio）
The wives at Miami University used channels within the university to alter the nepotism rule in September 1971 after $21 / 2$ months of effort．There has not been enough time yet to see whether wives will actually be hired in the same departments as their husbands． C．University of Wisconsin It was reported in the Atlantic Monthly（summer 1970）that the wives had filed a complaint with the Equal Rights Division of the Department of Industry，Labor，and Human Relations in Wisconsin．The university was told by this division that＂the imposition of a rule barring a husband and wife from the same department will be regarded as sex discrimination when marital relationship is unrelated to the job and the ability of the woman to perform。＂In a June 1971 issue of the Wall Street Journal，it was stated that a change had been made in the hiring of wives at Wisconsin．

D．University of Michigan
A group of professional and political women（FOCUS）filed a complaint of sex discrimination with HEW against the university．Another group of women（PROBE）from the university，including students，faculty，and staff，helped to collect information．After an investigation the federal government withheld 7.5 million dollars from the university until the school formulated a plan to end sex discrimination．One of HEW ＇s requirements was that the university＂develop a written policy on nepotism which will insure correct treatment of tandem teams．＂ Michigan＇s nepotism policy has been changed．The Michigan case appears to have been influential in the decisions at Ohio State and Miami Universities．All three will permit the hiring of spouses in the
＊Including AWM members Judith and Bryce Elkins．
same department, but specific approval must be obtained from the President at Miami and the Vice-President for Academic Affairs at Ohio State and Michigan. All three require that an individual not be supervised by a relative.
E. Harvard University

A complaint of sex discrimination was filed with HEW against Harvard. The federal government withheld 3 million dollars from the school while it changed its hiring procedures. Harvard might not have had a written nepotism rule. However, Harvard obtained its first tenured couple when a wife was promoted to the rank of professor as a result of the complaint.

F, Arizona state universities
During 1969-70, five women form the Tucson campus began a lawsuit against the Arizona Board of Regents' nepotism policies. The Board rescinded the entire rule on nepotism when it was told by the office of the state's attorney that their policy was probably constitutionally indefensible. There are wives who have now gained regular contracts in the same department as their husbands.
G. State University of New York.

The entire section on nepotism has been deleted from Policies of the Board of Trustees (for all SUNY) in 1971. There seems to have been a variety of both internal and external pressures for the change.
H. University of Texas

A complaint of sex discrimination has been filed with HEW by the women at Austin. The complaint includes the nepotism policy which effectively prevents husband and wife from being given faculty positions in the same department.
I. Yale University

The women at Yale have filed a pattern complaint witl: HEW which includes the nepotism policy.
J. There are reports of possibly new rules or action for new rules at Pittsburgh, Illinois, Maryland, and North Dakota. At Illinois you might try Mrs. R. W. Carroll, 2010 Silver Court East, Urbana, Ill. 61801. III More people to write for information
Margaret Rumbarger Ann Scott PROBE

AAUP NOW Contract Compliance
One DuPont Circle, NW 50 Willowbrook
Washington, D.C. 20036 Williamsville,N.Y. 14221
Regional meetings
The Boston area women have met again and those in the New York and Washington areas are planning to meet in February. Details will be sent to women living there soon.
Coming next issue
Report on the winter meeting
Article on the tribulations of job-hunting by a women with a Ph.D. in math who is now employed as a secretary.
Membership
Open to women and men. Dues two dollars per year. Make check payable to
Association for Women in Mathematics and send to
Mary W. Gray
Chairman, AWM
Department of Mathematics
American University
Washington, D.C. 20016
The AWM thanks the Department of Mathematics of the University of Maryland for its assistance in producing the newsletter.

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Prof Aliee T. Schafor Dept of Mathematios Wellisley Collge Wellosly, Mass

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[^0]:    *Ed. note. Most states now have a Commission on the Status of Women, composed of prominent women in the state. It is a good bet.

