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Association for Women in Mathematics

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Volume 9, Number 5 NEWSLETTER Sept.-Oct. 1979

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DUES! DUES! DUES! DUES! DUES!

Just a little reminder that dues are due in October. Use the form on the back page. See page 13 if you want to see where the money goes.

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* ENDORSEMENTS FOR THE AMS ELECTION *

* Vice President: Hyman Bass *

* Member-at-large: Lee Lorch, Marian Boykan Pour-El *

* Nominating Committee: Martin Davis, Jane Cronin Scanlon *

* (These candidates have been endorsed by half of the AWM Executive Committee.) *

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PRESIDENT'S REPORT

Duluth meeting. The Duluth meeting will have occurred by the time you read this, but has not occurred at the time of writing this president's report. Chief items on the Duluth agenda were/are the new by-laws and a discussion of affiliation. The latter came up because the new organization of math educators, Women and Math Education, is trying to decide whether it wants to affiliate with us. The basic questions are: what does affiliation mean? how should it be approved? should it cost anything? If you were not at Duluth and have any opinion about this, let me know.

Another sexist booklet, and a poster still. The National Council of Teachers of Mathematics has a booklet called Mathematics and My Career which portrays only men using mathematics in their work. Comments may be addressed to their Publications Committee at 1906 Association Drive, Reston, Va. 22091. IBM's wall poster is still called Men of Modern Mathematics and still describes Emmy Nother as "fat, rough, and loud." You can write to them at the Office of Charles Eames, IBM, Armonk, N. Y.

Speakers from Outside Academia. Schools, local math societies, and AWM meetings often need speakers who are mathematicians employed outside academia. If you are interested, send your name and topic (s) plus a brief vita to the Wellesley office. You will be added to our Speakers Bureau list, although it will probably be awhile before we compile and send out another one. You also might let your employer know you're interested in speaking to the community (free publicity for your boss), and contact someone in the local school system of PTA. What schools usually need is someone who is willing to talk informally about her work - especially how she prepared for her career.

Elections. Thanks to Anne Leggett for handling the AMS candidates questionnaires (this issue). And I am happy to announce that we have arranged with the MAA to send their candidates questionnaires starting with their next election.

Judy Roitman
Math Department
University of Kansas
Lawrence, KS 66045

ENDORSEMENT FOR LEE LORCH

We served on the Council of the AMS while Lee Lorch was a member-at-large. We found him a conscientious and uniquely constructive representative of the interests of the mathematical community.

We urge AMS members to support Lee Lorch for member-at-large in the coming election. It will be a real benefit to the Society to have his voice on Council again.

Chandler Davis
Michael Golomb
Mary W. Gray
Judy Green
J. L. Kelley
Jane Cronin Scanlon
J. Ernest Wilkins, Jr.

AMS ELECTION

Questionnaires were sent to AMS candidates in May to be returned by July 1. It is possible that some candidates did not see the letter in time to reply. Only one candidate by petition was known to me in time. This is the best we can do, given the current AMS election schedule. Return rate was about 50%. Endorsements are based on answers to the questions and on acquaintance with the candidates. One answer was received too late to be considered. One-half of the AWM Executive Committee members have endorsed each of the candidates listed on page 1 of the Newsletter. The candidates' answers appear in the sections that follow.

Candidates:

President-elect: Andrew Gleason
Vice President: Hyman Bass, David Gale, Mary Ellen Rudin, James B. Serrin
Trustee: Emory Thomas
Members-at-large: James G. Arthur, Eugene B. Dunkin, G. J. Fix, Frederic W. Gehring, Melvin Hochster, Lee Lorch, Marian Boykan Pour-El, David A. Sanchez
Nominating Committee: Martin Davis, Steve McAdam, Hugh Montgomery, Jane Cronin Scanlon, Karen Uhlenbeck

Questions:

(Thanks to Chandler Davis for supplying a couple of these.)

1. What is appropriate business for the AMS Council? On what sorts of issues is it appropriate for the AMS as a body to take a stand?
2. The blind refereeing system for the Proceedings has recently been made optional. Do you favor restoring the mandatory blind refereeing system?
3. Certain AMS offices (President, Trustee, Secretary, Associate Secretary, Treasurer, Associate Treasurer) are filled by uncontested election. How do you feel about the following proposal: that the Nominating Committee and the Council be open at their discretion to provide contested elections for these offices, and that nomination by petition be recognized for them on the same terms as it now is for Vice President and Member-at-large?
4. What efforts should be made to increase the percentage of mathematicians who are women, black, and Hispanics?
5. What responsibility does the mathematics community have toward recent Ph.D.'s (e.g., employability, research environment, tenurability)? In particular, what, if any, action should the AMS undertake?

VICE PRESIDENT

Hyman Bass

1. The AMS was founded as a scholarly society, and that remains its primary character, through its publications and organization of scientific meetings. However, it has recently begun to function as well as a professional society, taking stands on economic issues and occasionally on political and moral issues touching on mathematics or mathematicians. I personally feel that this evolution was both inevitable and appropriate.
2. On blind refereeing, I see two possibly conflicting aims at issue; in order of importance they are:
   (a) Protection of authors against prejudicial treatment by referees.
   (b) Not unduly burdening the (voluntary) services of the editors.

The objections to blind refereeing other than (b) I do not take very seriously, and the experiment so far shows that (b) itself is not a major problem with it. On the other hand extensive editorial experience suggests to me that there has been hardly any abuse of authors' interests of the kind alleged in arguing for blind refereeing. This however is an admittedly subjective view. If there is to be any blind refereeing, mandatory seems far more logical than optional, in view of the rationale of the system. However I would be reluctant to impose this against the will of a majority of the Editorial Board.

3. Concerning the elections for President, Trustee, Secretary, Associate Secretary, Treasurer, Associate Treasurer, your proposal combines many features about which my feelings vary. First, the Nominating Committee has only an advisory role, and can at most suggest action to the Council. Secondly, I am not aware that the Council does not now possess the authority to provide for contested elections for the above offices. The current system, as I understand it, is based on traditional practice, rather than on by-laws.

Each office entails functions that are technical or managerial, and others that involve policy decisions. It seems to me, as a practical matter, that contested elections are appropriate and desirable only in cases where policy-making functions are primary. From the above list I would include in this category only President and, to a lesser extent, Secretary. The Society, by tradition, has chosen to make the Presidency an honorific and depoliticized office. While this tradition might reasonably be questioned, few would deny that it has worked splendidly thus far.

The job of Society Secretary is by far the most professionally demanding one among elective offices. Though it carries some policy-making power, I still favor keeping it free of electioneering. This admittedly undemocratic sentiment is prompted by the fear that this vitally important Society function would not be served well if it were destabilized by frequent change and political pressure. I trust the Nominating Committee and Council to move for the appropriate change whenever that is deemed desirable.

4. To increase the membership of women, blacks, and Hispanics in the mathematical community, one must ultimately alter traditional cultural attitudes that go back to the family and early school years. The most persuasive way to change them is with successful professional role models drawn from these minority groups. The efforts of Lenore Blum are praiseworthy in this regard. I think that such efforts deserve Society encouragement and recognition.

In the meantime the colleges and graduate schools can make special efforts to identify mathematical talent in these minority groups, and to provide support and incentive to compensate for a background in which these may have been lacking. However, I emphasize the word "talent". I feel that it is a disservice to the individual to encourage him or her into a profession whose demands he or she cannot meet. Needless to say such judgments of potential "talent" must be made with a sensitivity and imagination that academics have not always shown.

5. The professional fate of recent Ph.D.'s is a major responsibility of the mathematical community. The Society has already been actively and constructively concerned with this issue, and much more remains to be done.

On the question of conditions of employment, the Society might publicly endorse or encourage certain academic practices, and condemn others.

In addition the Society should petition much more effectively for expanded public support for basic mathematical research, especially for young mathematicians.

<u>David Gale</u> (late)

In response to your letter of May 9 (apologies for the delay in responding), let me reply as best I can. Regarding the first question, I find it difficult to make any general statements about what sorts of issues the AMS should take a stand on. Roughly, I would generally oppose getting involved in political type issues but would support involvement where the question is one of scholarship. E.g., if some country were oppressing one of its minority groups, I don't think the AMS is an appropriate body for formal reaction; but if the oppression involved, for example, suppressing publication of selected individuals, it would seem proper for the Society to take a stand.

When I was on the Council, I was a strong supporter of blind refereeing. However, not having heard the recent arguments for and against, I'm not sufficiently informed to give an opinion on the matter in its present state. I feel it is an important issue.

I favor the uncontested offices policy, mainly on pragmatic grounds. As far as I can see, the present system seems to have worked well. It would certainly be more democratic if all offices were contested, but for a body like the AMS I'm not convinced that the optimal system is necessarily the one which maximizes democracy.

Regarding trying to increase women and other under-represented groups in mathematics, about the only concrete thing that occurs to me is to try to have more people from these groups give invited hour talks at meetings by way of providing visible examples of the opportunities for such people.

Your last question concerns essentially the job market. In this area the Society has, it seems to me, already been quite enterprising having created two different committees to consider the problems. I certainly feel that these activities should continue.

James Serrin

1. The AMS Council must be concerned with committees, meetings, prizes and awards, publications, including journals, memoirs, reviews, lectures, books, and expository writing. It must be concerned with maintaining an organization reflecting the health of American mathematics and it must place those matters first. By and large, if the Council is to consider political matters these matters must be those that affect mathematics directly and a proven case should be made, for we are a professional group and not a political party or politically motivated.
4. The question is not so much how to increase the percentage of mathematicians who are women or who come from minority races as to find good mathematicians of all kinds, with no artificially inserted barriers to their training or recruitment. In one sense I am myself a minority in the mathematical world, since I came from a family that lived in the Midwest for four generations--on the other hand there were no barriers raised to my becoming a mathematician outside of the initial financial problems of working my way through school. At the University of Minnesota, similarly, there are no barriers placed on becoming a mathematician, either at the undergraduate level or the graduate level. I cannot answer the same at the national level, because of lack of knowledge.
5. The mathematical community has always had a resoonsibility for giving Ph.D. candidates the best possible training, and I have always maintained that we should keep this responsibility in mind. We may have however, in the future, to consider how we must train Ph.D.'s if they are to be employed in community colleges. This and other examples of the changing job market, of course, must always be in our minds, though I do feel that first and foremost we must train our students to think clearly about good mathematical problems.

Statement: The purpose of the AMS is to support the mathematical life of mathematicians. This should be done through an active publication program, including expository papers, together with meetings, symposia, and conferences representing the best new research ideas and directions.

We should particularly seek to identify and reward outstanding mathematical work, and we must emphasize the centrality of mathematics to scientific endeavor, rather than accept a sideline position for the future.

TRUSTEE

Emory Thomas

1. According to the By-laws, "The Council shall formulate and administer the scientific policies of the Society....The Council shall also have power to speak in the name of the Society with respect to matters affecting the status of mathematics or mathematicians, such as proposed or enacted federal or state legislation; conditions of employment in universities, colleges, or business, research, or industrial organizations; regulations, policies or acts of governmental agencies or instrumentalities; and other items which tend to affect the dignity and effective position of mathematics." Thus I feel that the Council (and the AMS as a whole) should take stands only on those issues germane to the above matters.
2. I have not had direct experience with blind refereeing. Based on comments I've read in the minutes of Council Meetings, together with letters in the Notices, I'm inclined to keep it optional.

3. A few years ago the Council changed the voting procedure so as to have contested elections for the Nominating Committee (as well as nomination by petition for this Committee), but kept certain offices uncontested. While there is much to be said on both sides of the issue, the present arrangement seems like a reasonable compromise.
4. As individuals we need to be supportive and encouraging. At the departmental level an affirmative action plan is essential, providing both psychological and financial support. At the university level providing leaves as needed and allowing the option of part-time appointments (including tenure appointments part-time), are ways to help.
5. Ph.D. students (and recent Ph.D.'s) should be encouraged to obtain as broad a mathematical education as possible, including knowledge of computer science and numerical analysis. Most departments are more receptive to hiring a mathematician with such a background than one with only a narrow specialty. Also if an academic position is unavailable (or not desirable) there are good positions in industry and national laboratories for mathematicians with some applied background (important point: the Ph.D. thesis need not be in applied mathematics). Thus departments and individual mathematicians should encourage their students to obtain this broad training. The AMS already helps by providing information (panel discussions, articles in the Notices) and by organizing mini-courses in various applied fields. As to the research environment, the various proposals now being considered by the AMS and the NSF - a research institute of mathematics, short summer mini-institutes, additional postdoctoral and senior post-doctoral fellowships - as well as the traditional programs of the Society, all are ways to help sustain a stimulating research environment.

MEMBER-AT-LARGE

Frederic W. Gehring

1. The AMS was founded to foster teaching and research in mathematics. This means it should be concerned with the dissemination of mathematics through publication and meetings and with insuring that mathematicians have a good environment in which to work. The AMS is a professional rather than political society. However, any issue which seriously affects the welfare of mathematics is appropriate business for the AMS Council.
2. I do not favor mandatory blind refereeing for any journal. Referees and editors should have all available information about a manuscript before making a judgment. I also don't believe that the present system discriminates against less well-known mathematicians. Indeed, I have found that where marginal papers are concerned, young and inexperienced authors are more often given the benefit of the doubt than senior and better-known colleagues.
3. Certain AMS offices, such as President, Secretary, Associate Secretary, Treasurer, and Associate Treasurer, require a tremendous amount of time and specialized knowledge. I don't think that candidates should be nominated by petition for these posts. On the other hand, the AMS might want to consider the advisability of contested elections for the office of Trustee.
4. This problem has two aspects. First, women and minority students interested in mathematics should be helped to go as far as possible in their studies through some preferential graduate admission and hiring at the Ph.D. level. This is already being done in many schools. However, the real problem is to identify and encourage young students with real mathematical aptitude before they are channeled away from careers in mathematics by current sociological and psychological prejudices. The AMS could further support organizations like the AWM in efforts to publicize the achievements of women and minority mathematicians.
5. The mathematics community should do all it can to see that recent Ph.D.'s find suitable employment. For example, in 1972 the AMS Council recommended departments convert some teaching assistantships into junior faculty positions in order to create positions for new Ph.D.'s as well as slow the production of doctorates in mathematics. Such policy statements help department chairmen to justify the expense such conversions entail.

Mel Hochster

1. The primary goal of the Society is to support and encourage mathematical research. The Society should take stands only on those issues which have a more or less direct bearing on this objective. These do include, so far as I am concerned, those which affect the fairness with which (mathematical) minorities are treated, both in the United States and in foreign countries such as the Soviet Union, and, more generally those which affect the climate in which mathematicians work. I would hope to see the Council take a broad view of its responsibilities.
2. Of course, it is desirable for refereeing to be as fair as possible. However, I believe the blind system to be almost totally ineffective: in a truly vast majority of cases (always, within my personal experience as a referee), the identity of the author is immediately apparent, either from the paper's internal structure, the list of references, or simply because the referee has already been sent a preprint. Hence, I cannot endorse mandatory blind refereeing: its effectiveness is too small relative to the effort involved.
3. I do favor a more democratic system, such as the one proposed in the question, for electing top Society officers.
4. My feeling is that the most significant obstruction to increasing the percentages of mathematicians from underrepresented groups lies in the prevailing cultural attitudes in this country. Strenuous efforts to encourage and support women and minority students at the undergraduate and graduate levels who are already leaning toward mathematics will not make much of a dent: it is necessary somehow to spot mathematically-talented people earlier and get them to think seriously about mathematics as a career before they absorb the idea that it is not suitable for them. Whether the Society has the resources to undertake such a program is clearly a big question, but I believe it might be possible. I do support the various measures being taken now to guarantee consideration to women and minorities but seriously doubt their ultimate effectiveness: they are not dealing with the basic problem.
5. By the time we have turned out a new Ph.D. who is not quite strong enough to succeed as a researcher under the prevailing extremely competitive conditions and who has no other marketable skills, it is too late: we have already failed in our responsibilities. The Society is not in a position to create jobs. It might be possible to fund some fellowships for retraining, but it would be better to exercise restraint in recruiting graduate students in the first place. If individual institutions cannot be relied on to do this, the Society might make available to prospective graduate students information about the sort of job, including workload and salary, someone with a Ph.D. from the school they plan to attend is likely to obtain.

Moreover, everything possible should be done to encourage both institutions and students to make sure that the students have a strong component of training in such areas as applied mathematics, numerical analysis, and computer science. Such background makes a great difference in job prospects.

There are now predictions of a severe drop in undergraduate enrollment within the next few years: lower level schools have already been affected. This may well mean a substantial decrease in the number of academic positions available, and we should be acting right now both to reduce the number of graduate students and to make sure that those who are trained have marketable skills.

Lee Lorch

1. To promote the welfare of mathematics and its practitioners and students (including opportunities for high quality mathematical training), career opportunities for mathematicians (including security in these careers and academic freedom), improve working conditions, combat unemployment and underemployment where it is found. Support affirmative action programs to enrich mathematical life by equitable contributions of all groups. Support and extend international scientific cooperation to assist mathematical growth in a cordial atmosphere. Some of these points are elaborated in my reply to Questions 4 and 5.
2. Yes. Mandatory blind refereeing is in effect in many places. The French Academy, e.g., has long used it for its prize competitions, such as when Sofya Kovalevskaya won its Prix Bordin. Many universities use it for examinations.

3. I support the proposal as it stands. If this fails of adoption, the successful counter-argument would likely include the claim that, say, the Treasurer and Associate Treasurer hold largely technical offices. It could then be proposed that the AMS follow the principle on which elections in the Canadian Mathematical Society are based: that all voting members of the Council and its Executive Committee must be elected from ballots on which all offices are open to petition candidates. If the thus-elected Council is not able to fill satisfactorily technical offices, it is then free to add a few non-voting members to its number to discharge the appropriate tasks. Such members are free to participate in the discussions. This system has worked well and is not under any challenge.
4. This should be a high priority matter. An appropriate Committee should be composed of experienced, enthusiastic supporters of this program, including representatives of AWM, MAG, NAM. It should be required to report to each meeting of Council and to each AMS Business Meeting, and to publish frequently in the Notices, its plans and progress. Interested groups and, especially in the institutions known to be concerned, Departments of Mathematical Sciences, should be asked regularly to discuss this matter in their meetings, to send suggestions and to comment on the Committee's proposals and activities. Cooperation should be sought from appropriate outside organizations, including non-academic ones. Concentrated approaches should be made to pre-university schools at all levels. Governments, state (provincial) and federal, should be pressed vigorously to provide substantial affirmative action funds to attract members of these groups to the profession, to support them in preparing, to provide visible and permanent places for them. Quite a few concrete proposals can be made, but perhaps the foregoing is a sufficient indication of direction. The AMS, in current jargon, should maintain a "high profile" on this important issue. There is a very long way to go. This struggle should be connected with a general campaign on mathematical employment and working conditions, as discussed in reply to Question 5.
5. Here the AMS has a primary responsibility from the points of view both of not losing the contributions to science and education of the current generation and of the human rights of the affected individuals. The AMS needs to raise its efforts from job surveys to job-development (academic and non-academic). A vigorous Committee needs to pursue this matter in the fashion suggested in my answer to Question 4 and in cooperation with that Committee. Consideration should be given to accreditation procedures (such as some professional organizations have) to keep class sizes, teaching loads, support and library services, etc., at the proper standard. Federal funding (massive by our standards, piddling by theirs; cf. the military budget) for mathematical support, such as a comprehensive mathematical sciences information collection and retrieval service, would absorb the energies and training of many mathematicians and render a needed scientific service. The AMS needs to publicize widely the grave damage being inflicted on science, on students, and on those whose training is being under-utilized or scrapped by educational and scientific cutbacks. Again, many concrete proposals can be made. But the central issue is to have mathematical organizations fight in the political arena where funding decisions are made, and to cooperate with other organizations, academic and non-academic (such as those representing women, minorities, labor, etc.), to this end.

Marian Boykan Pour-El

1. The appropriate business of the AMS Council is three-fold. First, the Council should be concerned with the advancement of research and education in mathematics. Second, it should promote the welfare of mathematicians. Third, through the executive officers, it should represent the interests of the mathematical community to government, industry, and academia.
2. At present, my inclination is to favor blind refereeing. It appears to be a fair and democratic procedure. I am puzzled by the fact that the Council voted it down. I realize that a referee sometimes consents to take on a paper because he respects the author's work. Thus blind refereeing may, on occasion, make it more difficult for an editor to obtain a referee. I also realize that some AMS members oppose blind refereeing because of their belief that the integrity of the referee is being questioned. (I do not share this belief.) Perhaps there are additional considerations about which I am unaware. Until I investigate the matter completely, I shall not come to a definite conclusion.

3. I have begun to investigate this question. Comparable scientific organization - e.g., the American Chemical Society - hold contested elections for President and other officers. (I understand that the American Chemical Society introduced nomination by petition in recent years.) I hope to determine answers to the following three questions:

(1) What benefits/drawbacks have resulted from the election policies of comparable scientific organizations?

(2) To what degree are the experiences of these societies applicable to the AMS?

(3) Why has the AMS chosen to have contested elections for Vice President and Member-at-large, but not for President, etc.?

4. As a woman I would welcome an increase in the percentage of women and minorities. The question is whether the AMS is in a position to do anything about this matter. To a large extent women and minorities are underrepresented because they choose not to study mathematics. Since this decision is made at an early age - often in high school - the matter appears to be more properly the concern of associations dealing with the scientific education of the young. The National Council of Teachers of Mathematics is one such organization. If anyone has a suggestion as to how AMS can help, I would be pleased to know about it.

5. It is understood that the mathematical community should aid the professional development of the recent Ph.D. in any way it can. Thus I not only support, but hope that the following AMS procedures can be expanded.

(1) Research opportunities for the recent Ph.D.: This is accomplished in part through summer Institutes, Regional Conferences, Postdoctoral Fellowships, etc.

(2) Employment: Short courses, special sessions and panels on mathematical applications and on mathematically oriented disciplines (e.g., computer science, economics, etc.) should aid in expanding mathematical horizons. Panels on employment in government should also be helpful.

It is to be expected that experience obtained via (1) and (2) above would aid an academically oriented mathematician in achieving tenure.

NOMINATING COMMITTEE

Martin Davis

1. I've never attended an AMS Council meeting; but assume that it should deal with all appropriate AMS issues. I've tried to indicate in my statement what I think the right range is. Of course, I recognize that the lines I've tried to draw are often not so clear in practice.

2. I don't feel strongly either way on blind refereeing. (I've never had any trouble guessing the author's identity when I've been the referee.) An optional system seems reasonable.

3. I'm in favor of the proposal.

4. The phrase "nurturing of mathematical talent" from my statement expresses what I believe is the key. There should be positive efforts to locate young people who show mathematical ability, and to provide them with stimulation and support. Those involved in this talent search should be people who are particularly sensitive to the socio-economic factors which have tended towards selection of mathematicians from very narrow social strata, and should be prepared to help young people not in these strata overcome the various obstacles they face.

5. The AMS should not be passive about the job situation. The case for the importance to society of mathematical research is very strong but seldom made. Government and industry should be urged to increase support of mathematical research. We should think in terms of reduced teaching loads (and hence more jobs) for academic research mathematicians. Graduate training should include some exposure to topics and skills needed in industry, and the AMS should help make the usefulness of mathematical training clear to decision-makers in government and industry.

Statement: The purpose of the AMS is to promote and disseminate mathematical research. But this purpose should not be construed narrowly. The promotion of mathematical research should include: the nurturing of mathematical talent (in particular, when it is found in groups that have traditionally been under-represented in professional mathematics), the vigorous pursuit of programs and policies to make the usefulness of mathematical training clear to decision-makers, and efforts to come to the aid of our fellow mathematicians whose human rights are threatened. However, this does not justify involving the AMS in general social issues remote from its central concerns.

Steve McAdam

1. The function of the AMS is to foster mathematics, particularly research. As mathematics is a cultural activity, it is not inappropriate for the Society to address itself to certain social questions. For example, there undoubtedly exists a relatively untapped pool of talent among women and minorities. Finding ways of utilizing that talent is consistent with the Society's goals.
2. Personally I do not favor blind refereeing. Perhaps I am naive, but I know of little evidence revealing a problem concerning unfavorable prejudice. Favorable prejudice - being soft on friends - is probably a bigger problem, but not too big, I think. I do not feel strongly about this, either way.
3. It is reasonable that nomination by petition be possible for any office so long as the terms under which it is done are sufficiently stringent to assure that such nominees have some hope of success. (I do not know the terms under which candidates for Vice President can be nominated by petition.)
4. While the mathematical community should be responsive to any reasonable suggestions towards this end, obviously there is no quick cure. The problem will continue until society en toto changes its views on women and minorities. We can only influence this indirectly through our own attitudes in the classroom, and through the providing of role models. Hopefully, by now we have all evaluated our personal impact on female and minority students. The question of role models is much stickier. When evaluating a female/minority job candidate, along with appraising the person's talents as a mathematician and teacher, should a department consider the fact that that person would be a role model, and how much influence should that fact have? My own very personal answers are "yes" and "damned if I know".
5. As we do not control the purse strings, this is another problem over which we have limited control. Of course graduate students should be given a realistic view of job prospects, and those of limited talent should be actively discouraged. New Ph.D.'s hired as instructors should be given an opportunity, in terms of both time and environment, to pursue research, so that when seeking further employment their records truly reflect their abilities. There is a growing trend to hire candidates in applied mathematics. A danger exists that in the rush to do so, standards of quality might be lowered. This would be unwise.

Jane Cronin Scanlon

1. I think it is a mistake to try to formulate general rules about appropriate issues for the Council or the AMS to consider. When a new issue arises, the Council or the AMS should simply decide whether it should be considered, not spend preliminary time trying to decide how to apply some general rule (possibly irrelevant) to determine if the issue is appropriate.
2. Yes. There are a number of rational and realistic reasons for requiring blind refereeing. I think these outweigh the arguments against blind refereeing.
3. Contested elections might provide a valuable opportunity for members of the AMS to express opinions. However, I think that the responsibilities and work attached to the offices listed in the question should be described in detail, perhaps in the Notices. All of the offices listed carry much honor, but I think they also require a lot of work and time. Prospective candidates should realize what they are getting into.
4. Wherever possible, students should be made aware of the existence of women, black, and Hispanic mathematicians. Just the knowledge that someone else has "made it" can be very influential.

5. I favor all the steps that the AMS has taken to support recent Ph.D.'s: establishment of research fellowships, recommendations about converting T.A. appointments to instructorships, employment studies, etc. I am strongly in favor of continuing such actions, but I have no specific new suggestions to make.

LETTER FROM THE EDITOR

Recently I was involved in one of those friendly arguments about language. Mike, having said "Listen, girls", was astonished when Cathy and I chorused "women". He kept saying "but I wouldn't mind if you called me a boy" and "I can't believe you're so worked up about this".

I imagine most of us have had conversations of a similar nature. The arguments against the elimination of sexist language come in at least three categories: the attempt is a) unnecessary, b) awkward, or c) silly. I disagree completely with a), of course. Language is a shaper of thought, no doubt about it. The "his or her" approach is awkward, but it's not the only solution. Most of the awkwardness comes from changing speech habits - but language is always a living thing, and many good changes have already occurred in the media. As for c) - I must admit that I think it's silly to condemn the word "manipulate" because "man" appears in it - that's just an accident of etymology. But "mail carrier" instead of "mailman" - that's not silly. The uproar about "chairman", "chairperson", "chair" - not silly, either.

Well, now that I have you convinced - what about something to show your more skeptical friends? How do you avoid awkward constructions? How can you stay grammatical? Two pamphlets are available: "Guidelines for Nonsexist Use of Language in NCTE Publications", 1-15 copies available free from NCTE, 1111 Kenyon Road, Urbana, IL 61801 and "Guidelines for Nonsexist Language in APA Journals", 1 copy available by sending self-addressed stamped envelope to Publication Manual, Change Sheet 2, American Psychological Association, 1200 Seventeenth St., N.W., Wash., DC 20036. Both have lists of sexist phrases or sentences together with nonsexist revisions. Both also contain policy statements.

The Nonsexist Communicator by Dr. Bobbye Sorrels Persing (1978, Communication Dynamics Press, P.O. Box 555, East Elmhurst, NY 11369, $9.95 plus 75¢ shipping and handling) is subtitled "An Action Guide to Eradicating Sexism in Communication". I quote from the foreword: "The Nonsexist Communicator is a manual designed to eradicate the sexism deeply rooted in personal and organizational communication. The purpose is (1) to enhance your understanding of sexism, (2) to deepen your commitment to eliminating it, and (3) to help you achieve a nonsexist communication style. It is particularly helpful to the many people of good intention who, through years of cultural conditioning, have become unwitting transmitters of sexism." The first impression I (and many of my friends who happened to thumb through it) had is that the book is silly. The "satirical" exercises are a bit heavy-handed. (When was the last time you heard a woman called a "frail"? or a "deanette"?) However, don't let this throw you - the book is actually very sensible. It would be especially useful in business and in administration - it discusses letters and memoranda, reports, and manuals in 4 of its 6 chapters; only 1 page is devoted specifically to academic matters. Appendix A has a list of categories of sexist language with references given to the appropriate sections of the main body of the book and with corrected examples, as well as a list of sexist words/phrases with suggested alternates. Persing's treatment is very thorough. And she is dedicated to the proposition that humanist communication can be just as euphonious and natural-sounding as the sexist forms we're used to.

Robin Lakoff's Language and Woman's Place, Harper Colophon, 1975, is an interesting little book (83 pages) I found on a remainder table - I don't know if it's still in print. She has written a literate, thoughtful account of gender distinctions in language, especially in speech. In the first part, she analyzes the differences in the manners of speech men and women are expected to use and the differences in the ways men and women are referred to. (For example, women use tag questions more often than men, don't they? And think about the meanings "master" and"mistress" currently have!) The second part is called "Why Women Are

Ladies". Here she advances the thesis that "Rules of Politeness" apply differently to men's and women's speech. In essence, women are expected to be more polite than men, hence "men" and "ladies". This clearly puts a woman in a real bind: "If she refuses to talk like a lady, she is ridiculed and subjected to criticism as unfeminine; if she does learn, she is ridiculed as unable to think clearly, unable to take part in a serious discussion: in some sense, as less than fully human. These two choices which a woman has - to be less than a woman or less than a person - are highly painful." "Woman's language has as its foundation the attitude that women are marginal to the serious concerns of life, which are preempted by men."

And here on the 10 O'clock News I've just seen Little Miss Quinsippi Island and her court - nothing like a little reality when you're thinking of expressing a pious hope. I think I'll just skip it. Anyway: the pamphlets are free. TNC has flaws, but is the most thorough treatment I have seen. L&WP doesn't have much practical advice, but is theoretically the next linguistic battle you have.

Anne Leggett
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Western Illinois Univ.
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FIRST REPORT ON A PROJECT INVOLVING JOURNAL EDITORSHIPS: June, 1979

by Bhama Srinivasan, AWM Councilmember-at-large

During the past year I have been corresponding with the Editors-in-Chief of some mathematics journals, suggesting that they appoint women to their Editorial Boards. The following is a first report on this project; as I will indicate later, the project is not yet complete.

Initially I made a survey of 26 journals and found that out of a total of 467 editors there were only 8 women editors of these journals. I selected a sample of six journals which appear in the following table: the figures speak for themselves. (The last column is superfluous!)

Journal	Number of editors	Number of women editors
Advances in Mathematics	36	0
Communications in Algebra	38	0
Journal of Algebra	17	0
Journal of Approximation Theory	19	0
Journal of Combinatorial Theory (Series A & B)	42	0
Journal of Functional Analysis	15	0

I wrote to the Editors-in-Chief of these journals suggesting they appoint women editors. The responses were mixed. The following were the positive responses:

Communications in Algebra: One woman was appointed (Bhama Srinivasan)
Journal of Combinatorial Theory, Series B: One woman was appointed (Vera Sos)
Advances in Mathematics: Three women were appointed (Cathleen Morawetz, Olga Taussky Todd, Dorothy Stone)

There was no response from the Editor-in-Chief of the Journal of Algebra and non-commital responses from the other two. I have now written to another member of the Editorial Board of the Journal of Algebra and there is a good chance that he will push for a woman editor.

I had the following interesting exchange with one of the editors of one of the journals. His initial reply to me said it was the policy that only "leaders in the field" were appointed to the Editorial Board. On scanning the list of editors of this journal, I found a person who is an amateur mathematician known primarily for his contributions to a popular

scientific journal. I pointed this out as tactfully as possible and very soon after this I heard that a woman was being appointed to the Editorial Board.

Judy Roitman has now appointed a committee on journal editorships consisting of me as chairperson, Louise Hay, Linda Rothschild and Michele Vergne. We plan to send letters to all the editors of journals asking them about their procedures in appointing editors. I will write a further report in due course.

REPORT OF THE TREASURER

July 5, 1979

I. Accounting for the period June 1, 1978 - May 31, 1979

Balance, June 1, 1978		$1921.80
Receipts		
Dues - individuals	$8455.20	
- institutions	1690.00	
Advertising fees	580.00	
Contributions	334.98	
Interest	226.49	
Misc.	117.43	
5 shares Washington Water Power (value 5/31/79)	111.88	
Total	$11,515.98	
Expenses		
Wages (1)	$4,063.27	
Newsletters (2)	4,077.29	
Dues & Fees (3)	300.00	
Speakers' Bureau (4)	792.91	
ERA Lobbying Expenses (5)	53.19	
Entertainment (6)	58.91	
Operating Expenses (7)	721.01	
Misc.	56.26	
Total	$10,122.84	
Balance, May 31, 1979		$3314.94

(1) Part-time secretary
(2) Postage and printing for 6 issues and election special
(3) CBMS, Fed. of Org. of Prof. Women, Mass. Incorporation Fee
(4) Supplies, Labels, printing of 3500 copies
(5) Letters to Senators, Biloxi armbands
(6) Party in Providence
(7) Postage, phone, supplies, duplicating

Membership Statistics

Our mailing list totals 919 including 73 institutions and 49 outside the U.S.

Respectfully submitted,
Judith C. Wason, Treasurer

NOTES FROM AWM COUNCILMEMBERS

Teri Hoch Perl: The new Department of Defense language designed to replace Fortran has been named "ADA" after Ada Byron Lovelace. She, working with Charles Babbage in the 19th century (ed. note: see articles in earlier issues of AWM Newsletter), is credited with being the first person to detail the process known as computer programming.

Alice Schafer: Members are urged to organize local AWM meetings. If the announcements of the meetings get to the AMS in time they will put the announcements in the NOTICES. Hopefully the MAA will do the same in the MONTHLY.

STUDY ON WOMEN'S CAREER CHOICE AND ACADEMIC ACHIEVEMENT

Last spring I received a questionnaire from the Institute for Research on Social Problems, 711 Walnut St., Boulder, CO 80302; Phyllis A. Katz, Ph.D., Director. Dr. Sally L. Boswell, Principal Investigator, has given me permission to reprint her recent letter sharing some of the results of the study.

We received 460 completed questionnaires from 279 mathematicians, 90 psychologists and 91 English Ph.D.'s. Responses came from 40 states and the District of Columbia. The largest numbers were received from women who received Ph.D.'s in New York (9.7%), Illinois (9.2%), California (9%), Massachusetts (7.5%), and Pennsylvania (6.4%).

The background information revealed that the majority of the respondents were employed on a full-time permanent basis in a college or university setting. Among the sample of paychologists, 50% indicated that they were clinicians; most of the remainder were either in developmental (17.8%) or experimental psychology (14.4%). Among the English Ph.D.'s, 39.5% described their field as British or English literature; the next most popular choices were American literature and poetry (24.4%) and medieval literature and poetry (10.5%). The mathematicians designated their areas of specialization as follows: algebra (23.1%), probability/statistics (22.7%), analysis (17.9%), computer science (10.6%), topology (8.8%), geometry (3.7%), logic (3.3%), math education (2.9%), number theory (1.8%), numerical analysis (1.8%), and other applied and science related areas (3.3%).

Most of the women indicated that they were or had been married (81.3% of the psychologists, 71.9% of the English respondents, and 69.3% of the mathematicians). Approximately half of those women who had married worked in the same field as their spouse.

One of the primary goals of the study was to determine specific sources of influence on respondents in the development of interest in their chosen field. Women in all three fields ranked male college teachers as most influential. For the mathematicians, fathers were ranked second in importance and male high school teachers were ranked third. Mothers were ranked sixth. For the psychologists, mothers were ranked second, female college teachers third and fathers fourth. For the women in English, female college teachers were ranked second, mothers were ranked third, female high school teachers fourth and fathers fifth.

Mathematicians seem to make relatively early career decisions. By the time they completed high school, 39.9% of the mathematicians had reached firm career decisions, compared with 26.8% of the English Ph.D.'s and 23.3% of the psychologists.

As you may recall, one of the scales included in our questionnaire dealt with attitudes toward women's roles in contemporary society. The results from this measure indicated that the mathematicians were slightly more traditional in their attitudes towards women's roles than were the women in the other two groups. Women doctorates in all three groups, however, were more liberal in their attitudes than was comparison group of parents in Boulder, Colorado, as might be expected.

Perhaps the most interesting results were elicited by our questions about stereotyping. Although a majority of the women in all three fields felt that the general public holds stereotypes about women in their profession, mathematicians perceived the highest degree of stereotyping (82.8%), followed by English Ph.D.'s (73.9%) and psychologists (64.8%). The

six most frequently mentioned stereotypes for each area are listed below.

mathematics: unattractive, masculine, cold/distant, unfeminine, intelligent, odd
English: overly intellectual, unattractive, out of touch with reality, old maid, aggressive, obsessed with proper grammar
psychology: not as competent as men, aggressive, interested in children, interested in helping people, masculine, analytical

The respondents felt that male and female peer groups were the primary sources of stereotypic information about them. The mathematicians became aware of these stereotypes during high school; the English Ph.D.'s and psychologists learned these stereotypes as undergraduates.

We also asked the Ph.D.'s if society characterized their fields as masculine, feminine, or neutral. Most of the mathematicians indicated that society considers their field to be "decidedly masculine", whereas the English Ph.D.'s indicated that society considers their field "somewhat feminine". Most of the psychologists indicated that society considers their field neither masculine nor feminine. Note that mathematicians felt the general public associated the highest degree of masculinity with their field as well as the highest degree of stereotyping.

Respondents were asked whether women who enter traditionally "masculine" fields are negatively affected by the stereotyping. Women in all fields agreed that these women experienced some negative effects of stereotyping. These effects included such things as: difficulty in establishing professional respect, poor self-image, having to prove themselves, sex discrimination in promotions and wages, hostility from others, a sense of alienation, and a questioning of one's feminity. The women felt, however, that stereotyping in their particular fields was becoming a little weaker, mainly due to the fact that more women are entering these career areas.

As a measure of masculinity and femininity, we included the Bem Sex Role Inventory in our questionnaire packet. Respondents filled in one questionnaire for themselves and one for each of their parents. The results of this measure showed no statistical differences in masculinity or femininity for the mothers and fathers of the respondents in the three groups. On the self ratings, the mathematicians were the least masculine, followed by the psychologists and English Ph.D.'s. There were no differences among the three groups on the femininity scale. It should be noted that these results stand in marked contrast to the stereotypes about women in mathematics.

At the present time, we are studying student attitudes in primary and secondary school in order to clarify the developmental parameters associated with attitudes toward mathematics. The emphasis of this latter study is on the development of stereotypic beliefs, and we have used the results of the study on Ph.D.'s as a guide in formulating the content of this investigation.

ICME IV

The 4th International Congress on Mathematical Education will be held at the University of California, Berkeley, CA during August 10-16, 1980. The scientific program will examine a broad spectrum of problems in mathematical education at all levels and for every variety of learner. Special emphasis will be given to questions of universal primary education, of research, technology, applications, the profession of teaching, and the relationship of language and mathematics. Preliminary plans include four plenary session invited addresses, at least fifteen other main invited speakers (1 hour each) and about sixty panels and debates (1 to 2 hours). Many of the main speakers will be followed by a panel on the same topic. There will be poster sessions for short communications by participants. Especially solicited are posters on teaching mathematics to the handicapped and on problems and curricula in mathematical education in the participating countries. There will be many scheduled and unscheduled, informal events so that participants may gain from personal contacts. For information, write ICME IV, Mathematics Department, University of California, Berkeley, CA 94720.

OF POSSIBLE INTEREST

The Association for Computing Machinery Elementary and Secondary Schools Subcommittee of the Computer Education Committee has formed a task group on Women and Minorities in Computing. The aims are: 1. to identify what minorities and women are presently doing in the field concerning elementary and secondary computer education, and 2. to define a set of objectives or goals on the topic of women and minorities in computing. These objectives can be used in computer education courses, teacher training programs and professional seminars. The task group met in New York in June. For further information, write Barbara Kurshan, 2115 Laburnum Ave., SW, Roanoke, VA 24015.

The National Academy of Sciences, Office of Publications, 2101 Constitution Ave., Wash., DC 24018 has a new title on its booklist: Climbing the Academic Ladder: Doctoral Women Scientists in Academe. From the Commission on Human Resources, National Research Council, the report is the first systematic study of the status of women scientists in all scientific fields. It analyzes the social and institutional constraints that limit the participation of women in science and engineering and examines the problems of sex discrimination in their education and employment. Paperbound copies cost $8.00. Other titles include Minority Group Participation in Graduate Education, Mobility of Ph.D.'s: Before and After the Doctorate, and Peer Review in the National Science Foundation: Phase One of a Study.

Human Sciences Press, 72 Fifth Ave., NY, NY 10011 has a specialists book service for the area of women's studies. Categories of interest include aging; childhood and adolescence; counseling and guidance; early education; health and medicine; human services and mental health; psychotherapy; sex, marriage, and family; social issues; social service; and special education. Sample titles: The Evolving Female: Women in Psychosocial Context, Dual-Career Couples, Career and Motherhood: Struggles for a New Identity.

Eden Press Women's Publications, Box 51, St. Alban's VT 05478 also has an interesting book list. In addition, they publish the International Journal of Women's Studies and the Journal of Women's Studies in Literature.

Hands On!, a forum for science and technology educators, is a free newsletter published by Technical Education Research Centers, 575 Technology Sq., Cambridge, MA 02139. It has many articles about microprocessing, microcomputers, breadboarding, etc. TERC is a non-profit curriculum R&D corporation. It has a long commitment to improving science and technical education by encouraging the classroom use of modern, flexible, and economical hardware coordinated with the highest quality teaching material.

Girl Scouts of the USA has developed a career package called From Dreams to Reality. It contains a deck of career cards, an activity book called Adventures in Careers, a leaders' guide and a council guide. The program is designed to increase awareness of career options and to expand decision-making abilities and creativity for facing the problems of women vis-a-vis family and career life. Write Program Department, Girl Scouts of the USA, 830 Third Avenue, NY, NY 10022 or check with local GS.

The American Association for the Advancement of Science has been working for many years to increase opportunities for women, minorities, and the handicapped in science and engineering. An important aspect of that effort is increasing the representation of these groups within the AAAS membership itself. Write to AAAS , 1515 Massachusetts Ave., NW, Wash., DC 20005 for a packet of membership information.

David C. Kelly, Director, has sent some interesting information about the Hampshire College Summer Studies in Mathematics. The six-week program for high-ability high school students is supported by NSF and has been run each summer since Hampshire College (an accredited, independent, experimenting, liberal arts college located in Amherst, MA) opened in 1971. The daily schedule (Monday-Saturday) includes four hours of classes each morning and several hours of independent and small group study. College and university mathematicians assisted by talented graduate and undergraduate math students run workshops on various topics. Participants in past summers have produced interesting mathematical films, both conventionally and computer-animated.

How to Study Mathematics, Chemistry, Statistics, Physics by Jason L. Frand, Ph.D., UCLA (SKIL Publishing Co., 4412 Jasmine Ave., Culver City, CA 90230) is a 45-page paperback containing the kind of information about studying that many of our students unfortunately don't know.

DEADLINES: Sept. 24 for Nov.-Dec., Nov. 21 for Jan.-Feb., Jan. 24 for Mar.-April

ADDRESSES: Send all copy to Anne Leggett, Dept. of Math., Western Illinois University, Macomb, IL 61455. Send everything else, including ads, to AWM, Women's Research Center, Room 204, Wellesley College, 828 Washington Street, Wellesley MA 02181.

JOB ADS

Institutional members of AWM receive two free ads per year. All other ads are $5.00 apiece and must be prepaid. The vacancies listed below appear in alphabetical order by state. All institutions advertising below are Affirmative Action/Equal Opportunity employers.

Emory University. Dean of Graduate School of Arts and Sciences. Candidate must provide leadership and support for Emory's research effort by proposal preparation; contacting funding agencies; initiating and developing new graduate programs. This position will provide tenure and enable appointee to continue his or her research efforts. Requirements include: Ph.D. or equivalent; at least five years full-time research experience at tenured associate professorship level or equivalent private sector/governmental experience; evidence of teaching ability and administrative ability. Please contact Charles T. Lester, Chairman, Search Committee, Emory University, Atlanta, GA 30322.

Rensselaer Polytechnic Institute. Department of Mathematical Sciences. Outstanding mathematical scientist with professional commitment to applications and computing is sought for appointment as chairperson of this strong, research-oriented department. Letter and resume should be sent to Chairman, Search Committee, Department of Mathematical Sciences, Rensselaer Polytechnic Institute, Troy, New York 12181.

University of North Carolina at Chapel Hill. Mathematics Department. Openings for possible tenure-track positions and visiting positions for August, 1980. Rank and salary dependent on qualifications and budget considerations. Special consideration will be given to those in Numerical Methods or related fields. Have 3 letters of recommendation and vita sent to Chairman, Department of Mathematics, University of North Carolina at Chapel Hill, Phillips Hall 039A, Chapel Hill, North Carolina 27514. Initial deadline 2/1/80.

ASSOCIATION FOR WOMEN IN MATHEMATICS
MEMBERSHIP APPLICATION

The AWM membership year is October 1 to October 1.

Name and
Address_____

_____

_____

_____

Institutional affiliation, if any _____

_____

New_____ Renewal _____

Individual $10.00 _____

Family $15.00 _____

Retired, Student, Unemployed $5.00 _____

Institutional $25.00 (Two free advertisements in the Newsletter)
Contributions are tax deductible, welcome and needed.

Make checks
payable to: ASSOCIATION FOR WOMEN IN MATHEMATICS

and mail to: Association for Women in Mathematics
Women's Research Center, Wellesley College
828 Washington Street
Wellesley, Massachusetts 02181

Associaiton for Women in Mathematics
Women's Research Center, Wellesley College
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September-October 1979