

# Association for Women in Mathematics

Volume 16, Number 2

NEWSLETTER

March-April 1986

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## PRESIDENT'S REPORT

Annual Meeting: New Orleans, January 7-12, 1986

Program in Honor of Julia Bowman Robinson: AWM together with the AMS and the MAA sponsored this program in memory of Julia Robinson. After greetings by the presidents of the sponsoring societies, Constance Reid spoke about Julia's life. Her notes were from an article she has written titled "An Autobiography of Julia Robinson by Constance Reid." This has appeared in the January issue of the *College Mathematics Journal* (formerly the *Two Year College Mathematics Journal*); it will also appear in *More Mathematical People*, the sequel volume to *Mathematical People*. Constance is Julia's sister and a biographer of several other mathematicians. We were very pleased to have her share with us some of the more personal aspects of Julia's life as well as some of Julia's ideas about her mathematics. Next, Lisl Gaal of the University of Minnesota gave a brief description of Julia's thesis. Finally, Martin Davis of the Courant Institute of New York University gave a retrospective on Julia's mathematics. These mathematical talks will appear in future issues of this newsletter.

Emmy Noether Lecture: This year's Emmy Noether Lecturer was Professor Yvonne Choquet-Bruhat from the University of Paris. Her title was "On Partial Differential Equations of Gauge Theories and General Relativity." We were especially delighted to have Professor Choquet-Bruhat who was willing to come all the way from Europe to address us.

AWM Cocktail Party: Our traditional party was again a place to exchange greetings and news and to meet new people.

ICM-86: The planning committee for our International Panel of Women Mathematicians for ICM-86 reported that they have invited a number of people and expect to have an interesting program. A sour note was the publication of the list of ICM speakers who had accepted invitations by early January. The incomplete list (100 out of about 160) contained the name of only one woman speaker, Judith Grabiner, in the section on history and education. We hope that when the final list is published, the Program Committee of ICM-86 will have shown their awareness of the number of world-class women mathematicians and the necessity of having them represented at the Congress.

Funding for Mathematics: There was a special invited address by Erich Bloch, Director of the National Science Foundation titled "Current Issues in NSF Support for Research Education." There was also a resolution passed at the AMS Council meeting supporting the sentiment that unless research is explicitly classified or proprietary there should be no restraints on open discussion or publication of such research. The AWM executive committee voted to support this resolution. There was also a lot of informal discussion of questions relating to funding, among them those raised in the previous newsletter. The resolution of these issues will have long-term effects on the professional lives of us all. Send your ideas to the Joint Science Policy Committee. It has a great deal of influence.

Linda Keen  
Department of Mathematics  
and Computer Science  
Herbert H. Lehman College, CUNY  
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## YVONNE CHOQUET-BRUHAT

by Anne Leggett

Because of the inexact correspondence between titles in the French and American educational systems, I have given them in French with parenthetical translations into English to the best of my understanding.

AWM was indeed pleased to have Professor Yvonne Choquet-Bruhat deliver the Emmy Noether Lecture at the AMS/MAA joint annual meetings this year. Her international reputation as an expert in mathematical physics is well-deserved. Her publications number well over 100. Because the list of publications is so extensive, rather than print a bibliography I will refer you to the *Mathematical Reviews Author Index*. (In the 1940-59 issue, look under Fourès-Bruhat; in the 1960-64 issue, under Bruhat, and in subsequent issues, under Choquet-Bruhat).

Professor Choquet-Bruhat was born in Lille, France in 1923. She is married with three children. She received her Baccalauréat (secondary school diploma) in 1941. She took second prize in physics at the Concours Général (an annual exam given to the best students from the best secondary schools). She was a student at the École Normale Supérieure (teacher training for the secondary schools) from 1943 to 1946. In 1946, she received her Agrégation de Mathématique, first class (taking a competitive exam qualified her as a teacher at the secondary level). In 1951 she received her Docteur ès Sciences (Ph.D.).

Her teaching career began as an agrégée répétitrice (teaching assistant) at the École Normale Supérieure from 1946-1949. From 1949-1951 she was an attachée and then a chargée de recherches (research assistant, research associate) at the Centre National de la Recherche Scientifique (a national center devoted to developing and coordinating all types of scientific research). She was a member of the Institute for Advanced Study in Princeton from 1951-1952. From 1953-1958 she was maître de conférences (assistant professor) and then a professeur sans chaire (associate professor) at the Faculté des Sciences de Marseille (college of sciences). She served as professeur sans chaire at l'Université de Reims from 1958-1959. She has been professeur titulaire (full professor with tenure) at the Faculté des Sciences de Paris, then at l'Université Pierre et Marie Curie since 1960.

She was an elected member of the Comité Consultatif des Universités (advisory board of universities) in 1958 and 1970. In 1967 she was an elected member of the Commission du Centre National de la Recherche Scientifique for theoretical physics. She has been a member of the Comité International de Relativité Générale et Gravitation (international board for general relativity and gravitation) since 1965, serving as its president from 1980 to 1983. She was a member of the Council of the Société Mathématique de France (French mathematical society) in 1975.

During her career she has earned many honors. In 1954 she received the bronze medal of the C.N.R.S., and in 1958 she received the silver medal of the same organization. In 1963 she was awarded the Prix Henri de Parville de l'Académie des Sciences. She received the Prix des savants français morts pour la France (prize of the French scientists who died for France) in 1965. In 1975 she became a Chevalier de la légion d'honneur (highest grade of the Legion of Honor). In 1979 she became a member of the French Academy of Sciences (an organization no better known for rewarding women than our own National Academy of Sciences). In 1985, she became a member of the American Academy of Arts and Sciences.

## LETTER FROM THE EDITOR

The Project on the Status and Education of Women, Association of American Colleges has published a report "Campus Gang Rape: Party Games?" by Julie K. Ehrhart and Bernice R. Sandler. Copies are available from the Project, AAC, 1818 R St., NW, Washington, DC 20009 for \$3.00 (bulk rates are available). It is a well-written study of a serious problem.

I remember going out with a guy named Skip when I was an undergraduate. After our first and only date, he tried to convince me to go to his apartment and to bed with him. When I refused, he said, among other things which I think I was supposed to find very educational, that all men wanted to rape and that all women wanted to be raped. I told him that he was nuts. He told me that if I touched his leg he couldn't be responsible for his actions. Needless to say, I didn't touch his leg. At the time, I didn't feel in any danger, and he returned me home without attacking me. Given what I have read in the last few years about date and acquaintance rape, I think I was pretty lucky.

So I lucked out. How many of our students have been less fortunate? How many young men today have ideas as crazed as Skip's about sex? How can fraternity men believe that if a young woman has passed out in their house, she has thereby given consent to gang sex?

This report gives many practical suggestions on how a university can deal with rape and other sexual crimes. I recommend it.

On a lighter note, the Wellesley #1 team of Sherene Aram and Robbin Evans won the First Annual Marathon of the Mind at ComputerPlace, part of the Boston Museum of Science. The event was cosponsored by the museum and Infocom, a software company that produces mostly interactive fiction. The team solved "Spellbreaker," sixth game in the wonderful Zork series. They beat teams from Boston University, University of Massachusetts at Boston, Massachusetts Institute of Technology, Boston College, and Harvard. It's nice to see women students win a contest like this. Maybe I should write them--they might be able to help me get the white cube out from under the roc egg...

*PC Magazine* has a column called "Computers in Society" by Stan Augarten. His topic in the January 14, 1986 issue is "Can Computers Be Fail-Safe?" He begins with "[t]he Department of Defense, whose favorite pastime is throwing good money after bad, has devised another idiotic scheme to save us from the Communists." Of course he is talking about the Strategic Defense Initiative. He raises a number of objections to the feasibility of SDI, e.g., the difficulty of writing that many lines of error-free code. He informs us of Pentagon dreams to be capable of running a war entirely by computer. He also mentions a paper, "The Star Wars Computer System" written by Greg Nelson and David Redell under the auspices of Computer Professionals for Social Responsibility. To obtain a copy, send \$1 for postage and handling to CPSR, P.O. Box 717, Palo Alto, CA 94301.

You may recall that last issue I told you a little about the AMITA High School Outreach Program. AWM participated in this program in 1985 through the AWM Speaker's Bureau. Any interested members of the Speaker's Bureau or in the Boston Area AWM are encouraged to participate. Call Mary Beth Ruskai at 1-452-5000x2814 or x2520.

Anne Leggett  
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## HONORS AND AWARDS

Congratulations to the following winners of Fulbright Awards for 1985-1986. Marjorie Fitting, professor of mathematics and computer science, San Jose State University, will go to Portugal. Diane Johnson, assistant professor of mathematics, University of San Diego, will go to Rumania.

## WEEA GRANT NEEDS YOUR INPUT

A new project, funded by the Women's Educational Equity Act program, United States Department of Education, is developing an institutional self-study guide to assist elementary, secondary, and postsecondary educators to identify and eliminate barriers to computer education for girls and women. The project, co-directed by Drs. Karen Bogart and Cynthia Secor, is now collecting examples for girls and women (K through postsecondary) or that discourage it. We are also interested in references for exemplary programs, computer software, textbooks, etc. to feature in an accompanying directory to programs and resources that promote computer education for girls and women.

**WE NEED YOUR HELP.** If you are interested in contributing information to this project please contact Dr. Judith E. Jacobs, c/o HERS/Mid-America, University of Denver, Colorado Women's College Campus, Denver, CO 80220 for a packet of materials.

REPORT OF THE TREASURER:

December, 1985

Accounting for the period June 1, 1985 to November 30, 1985

BALANCE as of June 1, 1985 . . . . . \$37,826.19

Total Assets, June 1, 1985 . . . . . \$37,938.07

Note: The figure \$37,938.07 represents \$37,826.19 cash-on-hand plus  
5 shares of Washington Water Power valued at \$111.88 as of 5/31/79.

Receipts

Dues - Individuals	\$10,530.00
Families	900.00
Institutional	3,785.00
Advertising Fees	355.00
Contributions	3,951.87
Kovalevsky Symposium	2,686.50
Returned Speakers' Bureau Honorarium	125.00
Interest	1,239.31
Miscellaneous	<u>321.47</u>

TOTAL RECEIPTS . . . . . \$23,894.15

Expenses

Wages & FICA (1)	\$4,388.51
Newsletter (2)	3,334.60
Dues & Fees (3)	238.50
Operating Expenses (4)	1,073.75
Speakers' Bureau (5)	4,720.89
Raytheon Grants (6)	3,425.53
AWM National Meetings	130.00
Kovalevsky Symposium	7,486.65
Massachusetts Income Tax	117.98
Bulk Mail Deposits (7)	378.60
Miscellaneous	<u>28.00</u>

TOTAL EXPENSES . . . . . \$25,323.01

BALANCE as of November 30, 1985 . . . . . \$36,397.33

- (1) Part-time Administrative Assistant.
- (2) Typing, postage and printing.
- (3) Conference Board of the Mathematical Sciences, Massachusetts Incorporation Fee, Bulk Mailing Permit Fee, Dept. of Public Charities
- (4) Postage, phone, supplies, duplicating.
- (5) Wages for clerical help; phone, postage and duplicating expenses; travel, accommodations, and honorarium for speakers.
- (6) Grants to women high school teachers to learn Pascal and/or Data Structures.
- (7) Deposits into our Bulk Mailing account against which bulk mailings of the Newsletter and dues notices will be charged.

Membership Statistics: Our mailing list totals about 1500 including institutions and members in Canada and abroad.

The above receipts for the Kovalevsky Symposium include \$1,000 from Arthur D. Little and \$1,000 from Mitre, both towards the high school day. In addition, we will be receiving \$5,000 towards the high school day from Digital Equipment Corporation and \$11,678 from NSF for the research part of the symposium. The only major expense we have for which we have not yet been billed is the computer in the AWM office, which is \$4,475.00.

We have used up the entire Sloan Grant for the Speakers' Bureau. Therefore, until we obtain another grant for the Speakers' Bureau, there will be no honorarium given.

Respectfully submitted,

Lynnell E. Stern, Treasurer

## BULLETINS ON SCIENCE & TECHNOLOGY FOR THE HANDICAPPED

*Bulletins on Science & Technology for the Handicapped* is published quarterly by the Project on the Handicapped in Science, American Association for the Advancement of Science. The issue for Fall 1984 has the following sections: feature story; a column "Research on Technology To Aid Handicapped People;" announcements with subsections on organizations, awards and scholarships, grants for research, and requests for individual response; action network; technology briefs, including in this issue a subsection on computers; employment and a calendar of events. The special emphasis of this particular issue is computers and disabled people. Much work has been done in the last few years to customize microcomputer setups so that people with varying sorts of disabilities can communicate better, care for themselves more easily, and do computer work from home over a modem. (You may have seen the story in the news recently about the young man with cerebral palsy who read the Torah portion at his bar mitzvah by using a speech synthesizer.)

This publication looks to be an extremely valuable resource. Write:

Project on Science & Technology for the Handicapped  
American Association for the Advancement of Science  
1776 Massachusetts Ave., NW  
Washington, DC 20036.

## NSF AWARDS GRANT TO OPERATION S.M.A.R.T.

press release

### *Innovative Program Removes Barriers for Girls in Science, Math And Related Technology*

Girls Clubs of America (GCA) Inc. was awarded a three-year grant of \$784,147 from the National Science Foundation to support GCA's Operation S.M.A.R.T. (Science, Math And Relevant Technology), a program of informal education designed for girls aged 6-18.

"Early test scores show girls equal to boys in their aptitude for science and math, yet by junior high school, girls tend not to pursue interest and abilities in these fields," says Margaret Gates, National Executive Director of GCA. The NSF grant will fund the early adolescent component of the program for girls aged 11-14 which began on January 1, 1986 at the Girls Clubs of Syracuse and Schenectady in New York and Lynn, Greenfield, Pittsfield, Springfield and Holyoke in Massachusetts.

"The importance of being at ease with science, math and high technology goes beyond career opportunities - though these are crucial - into the very fabric of society," states program director Ellen Wahl Sullivan.

Studies have shown the ages of 11 through 14 to be particularly critical for girls' development of both attitudes toward and skills in math and science. "The years of early adolescence are a time when barriers to participation and sex-role stereotypes can easily overpower initial interest in science and math," says Ms. Sullivan. "Operation S.M.A.R.T. is designed to remove those barriers and enhance girls' natural abilities."

Developed by GCA in conjunction with major experts in the field, Operation S.M.A.R.T. is collaborating with Children's Television Workshop (producers of Sesame Street, the Electric Company, and the science series 3-2-1-Contact); EQUALS, a national math project; the American Association for the Advancement of Science, and numerous related resource organizations. A traveling library compiled by the GCA National Resource Center provides a research base for program design and allows Clubs to decide what resources they will purchase for permanent use in their own libraries.

Clubs develop targeted programs in math and science and design ways to integrate these fields into overall programs. The emphasis is on hands-on, experiential, participatory activities, rather than on pencil-and-paper "school" type work. "We stress conceptual ideas like logic and spatial awareness, and organizational skills such as observation and recording. The focus in Operation S.M.A.R.T. is to have girls recognize that math and science are all around them and are part of everyday life, from the binary system used to operate the computer that runs the sophisticated washer-dryer to the angle that knocks a ball in the pocket at the pool table," explains Ms. Sullivan. Traditional science activities, such as nature walks and blood typing, are also included in the program. In tandem with demystifying math and science, the program emphasizes how interest in these fields can lead to new career opportunities.

"No matter what the activity, our goal is to promote girls thinking in a scientific way," notes Ms. Sullivan. "We want to generate questioning, curiosity, exploratory urges, the habit of documentation. We want girls to build things and to take them apart: we want to encourage them to take physical and intellectual risks so that they discover it's worthwhile to try, to come up with creative answers even if they're wrong."

A feasibility study conducted in 1982 by an executive on loan from IBM to GCA identified programs at five northeast Girls Clubs for pilot projects. Major grants from the General Electric Foundation and the Department of Education, as well as additional funding from the Texaco Philanthropic Foundation, the Mobil Foundation, The Northrop Corporation, the International Business Machines Corporation, and the Alfred E. Harcourt Foundation, provided the funding for the first year of Operation S.M.A.R.T.

Phase one of the program, for girls aged six to eleven, has been markedly successful. One unusual activity had girls aged 6-8 learning about the world of optics as they built cameras from cylinders. Another unique project involved problem-solving sessions using computer simulations. In this project, 11-year-old girls had to make decisions about camping gear, paddling speed, course and direction as they battled the other team to the finish line in a simulated canoe race. At Girls Club of Schenectady, New York, where the Club building was being reconstructed, girls built models reflecting the various stages of the building process.

GCA estimates that by the end of 1988, Operation S.M.A.R.T. will have reached 500,000 girls, 250,000 parents and 190 local communities of Girls Clubs as well as other youth-serving organizations and will have a truly significant impact on informal science and math education in the United States.

Girls Clubs of America, Inc., is a national organization serving nearly a quarter of a million girls aged 6-18 through 240 Girls Club Centers and outreach programs across the country. Girls Clubs programs offer education, recreation, career awareness and support services. Nearly 75 percent of the participating girls are from low-income families, and close to half are members of minority groups.

#### A DECLINING FEDERAL COMMITMENT TO RESEARCH ABOUT WOMEN, 1980-1984

*A Declining Federal Commitment to Research about Women, 1980-1984* is a report from the Commission on New Funding Priorities, The National Council for Research on Women prepared by Mary Rubin, Research Associate.

**FACT:** The National Institute of Education **reduced grant support** for research and training projects concerning women and minorities **from \$3.4 million in 1980 to \$168,000 in 1983**

**FACT:** National Science Foundation grants to **support** research related to women **declined from \$2.3 million in 1981 to \$1.4 million in 1983**

**FACT:** The Labor Department's Employment and Training Administration **reduced funding** for projects focused on women's employment issues **from \$753,000 in 1981 to \$50,000 in 1983**

**FACT: National Institute of Mental Health support for research about women declined by almost \$3 million--over 40%--between 1980 and 1982**

*A Declining Federal Commitment to Research about Women, 1980-1984*, first released last May and updated for publication this fall, compiles post-1980 funding data available from eight federal agencies. The report documents the significant decrease in federal funding for research about women during the four fiscal years studied; the change in the character of federally-funded research, with research about women subsumed into areas less-clearly focused on women; and the noticeable lack of available records about research in general and the lack of access to women's research data in particular that blocks effective monitoring of public agencies.

Copies are \$6.00 each. Make checks payable to NCRW. Send order to:  
The National Council for Research on Women  
47-49 East 65th Street  
New York, NY 10021.

### USCMI PRE-CONGRESS SERIES OF INVITED SURVEY TALKS

On the afternoon of August 2, 1986 the United States Commission on Mathematical Instruction will sponsor a series of invited survey talks aimed at enhancing understanding and appreciation of some of the major research-related work which will be discussed at ICM-86.

The UCSMI invites recommendations of potential speakers and their areas of interest. Please send all suggestions to the session organizer: Warren Page, New York City Technical College, 300 Jay Street, Brooklyn, New York 11201.

Further details, including the names of speakers and titles of their survey talks will be announced in a forthcoming issue of this newsletter.

### WOMEN, NUMBERS AND DREAMS

*Women, Numbers and Dreams* chronicles the lives and work of Mary Somerville, Ada Lovelace, Mary Everett Boole, Emmy Noether, Lenore Blum and 7 other women of diverse cultures whose work in mathematics led to significant developments in their fields. Designed specifically for upper elementary school use, marvelous activities have been developed by the authors, Teri Hoch Perl and Joan M. Manning, to expand on each biography.

Duplication of the activities for classroom use is encouraged through both a statement on the first page and through the material's presentation in a loose-leaf format.

*Women, Numbers and Dreams* and its accompanying Teacher's Guide (278 pages total) are now available through the National Women's History Project for \$12.95, plus \$2 shipping. Write to them at P.O. Box 3716, Santa Rosa, CA 95402, or call (707)526-5974 to place your order by phone.

### MATERIALS FOR ELEMENTARY SCHOOL MATHEMATICS INSTRUCTION

This is the first in a series of targeted program solicitations that NSF's Directorate for Science and Engineering Education will issue to elicit proposals directed toward specific high priority problems and opportunities facing mathematics, science and technology education in the nation's schools. These solicitations are intended to complement, not to supplant, already existing program guidelines and announcements, which describe the broad range of interests of NSF's Divisions of Materials Development and Research (see NSF Publication #85-10) and of Teacher Enhancement and Informal Science Education (NSF #85-9).

## Introduction

The Division of Materials Development and Research (DMDR) supports a wide range of projects designed to expand the knowledge base and to provide new and improved models and materials resources needed to increase the quality of, and continuously renew, the Nation's educational systems in mathematics, science and technology. This broad goal translates into four specific objectives that frame the Division's programs. These objectives are to:

- expand the pool of knowledge about the factors critical to effective teaching and learning of mathematics, science and technology;
- stimulate the development of, provide exemplary models for, and facilitate the use of new and improved instructional materials for students and teachers that incorporate the most recent advances in subject matter content, research in teaching and learning, and instructional technology;
- stimulate thinking and experimentation about, and provide exemplary models and materials for, improved and innovative methods for the preparation of teachers of mathematics, science and technology; and
- analyze the potential for, and facilitate the use of, state-of-the-art technologies in education.

The Division employs a combined approach in eliciting and selecting projects for support. First, the Division accepts "unsolicited" proposals submitted in response to program announcements describing its general purview and interests (e.g., NSF 85-10). Second, every year the Division will issue a set of program solicitations, each targeted to address a specific high priority problem or opportunity. These solicitations often will be for one-time NSF support, designed to leverage or energize activity with the expectation that the activity will be self-perpetuating after NSF support is no longer provided.

This is the first in a projected series of program solicitations that will be issued by the Division of Materials Development and Research. The target of this solicitation is the creation of improved materials and model programs for elementary school mathematics instruction, taking cognizance of the wide availability of calculators and computers. The Division expects to issue two additional solicitations in the very near future, one targeted on improved programs and materials for science instruction at the elementary level, and one targeted on improved programs for the preparation of science and/or mathematics teachers.

## Solicitation

Recent advances in technology have lowered the cost of a hand calculator to the point where it is less expensive than a textbook. Moreover, microcomputers are now sufficiently inexpensive that they are available in many schools throughout the Nation. It is reasonable to assume that, at least within a few years, a calculator will be available for every student and a computer will be available in every classroom. Yet the impact of calculators and computers on elementary and middle school mathematics curricula is still minimal.

The availability of this technology has consequences both for the kinds of mathematics that children *should* learn and for the kinds of mathematics that children *can* learn. On the one hand, much of the time that has been devoted in the past to mastering the mechanics of arithmetic algorithms is no longer necessary. On the other hand, calculators and computers can be used to enhance significantly children's understanding of mathematical concepts and applications. Although there has been some thought and effort devoted to this, there still is little, if any, available in the way of instructional materials and elementary mathematics curricula that reflect these issues [*Needed Changes in Mathematics Curricula*, Z. Usiskin. In: *School Mathematics: Options for the 1990's*. Volume 2: Proceedings of the Conference, U.S. Department of Education, 1984.].

The Division of Materials Development and Research is inviting proposals for projects that will explore the consequences of the availability of calculators and computers for the elementary mathematics (K-6) curriculum. The goal is to develop model mathematics curricula and prototypical instructional materials under the assumption that every student has a calculator and has access to a computer. It is expected that these curricula will, for example, place substantially more emphasis on mental arithmetic, estimation, and approximation, and substantially less on paper and pencil calculations. Exploration of the implications of using calculators and/or computers for teaching applications of elementary mathematics is another appropriate emphasis for these projects.

Projects likely will be conducted in phases. In the first phases, these projects will thoroughly review existing elementary mathematics textbooks and curricula, determine which topics in existing



curricula are no longer appropriate or are treated in too much detail, and which topics are not treated but should be. This process should take into account the recommendations of professional societies and commissions [*An Agenda for Action: Recommendations for School Mathematics of the 1980's*. National Council of Teachers of Mathematics, 1980. *Educating Americans for the 21st Century*. National Science Board Commission on Precollege Education in Mathematics, Science and Technology, 1983. *The Impact of Computing Technology on School Mathematics*. National Council of Teachers of Mathematics, 1984. *The Mathematical Sciences Curriculum K-12: What is Still Fundamental and What is Not*. Report from the Conference Board of the Mathematical Sciences to the National Science Board Commission on Precollege Education in Mathematics, Science and Technology, 1982. *School Mathematics: Options for the 1990's* (Chairman's Report and Proceedings of the Conference). U.S. Department of Education, 1984.] and efforts that have already been made in other countries as well as in this Nation [*Mathematics Counts* (Report of the Committee of Inquiry into the Teaching of Mathematics in Schools under the Chairmanship of Dr. W.H. Cockcroft). Her Majesty's Stationery Office, London, 1982. *Future Oriented Mathematics and Computer Literacy Development Project for Elementary Schools*. Project supported by NSF grant DPE 84-70128. Preliminary report available from Dr. Ruth I. Hoffman at the Department of Mathematics and Computer Science, University of Denver, Denver, CO 80208. *University of Chicago School Mathematics Project*. Judd Hall, 5835 S. Kimbark, Chicago IL 60637.]. The projects will then develop plans, based on the findings of this first phase, for a complete K-6 mathematics curriculum, for a subset of that curriculum (e.g., for grades K-3 or 4-6), or for a strand within the curriculum. Finally, each project will develop prototypical instructional materials that will model the major recommended changes.

Projects supported under this solicitation may focus on calculators, on computers, or on both calculators and computers. Projects that include a computer focus should not devote significant effort to the development of computer software, but rather should take into account existing software and software likely to be available in the near future.

Each project should include plans for the evaluation of the materials developed and for the widespread dissemination of both the prototypic materials and the project's recommendations. The project should also formulate recommendations for teacher training necessary for the implementation of the recommended curriculum.

The Division of Materials Development and Research expects to make three to six awards in this area, with a duration of from three to four years each, totaling up to \$5 million.

### Proposals

For guidance on the specifics of proposal preparation, proposers should consult the two publications, *Program Announcement, Division of Materials Development and Research* (NSF 85-10) and *Grants for Scientific and Engineering Research* (NSF 85-37). All proposals responding to this program solicitation must be submitted no later than March 17, 1986. Project starting dates of September 1, 1986, or later may be requested. By their nature, proposals appropriate for the solicitation target described in this announcement are likely to be one of a kind and rather complex. Therefore, contact with program staff before submitting formal proposals is strongly encouraged. Program staff can be reached at 202/357-7066.

Questions may be directed to the NSF staff by writing to:

Instructional Materials Development Program  
Division of Materials Development and Research  
Directorate for Science and Engineering Education  
National Science Foundation  
Washington, DC 20550.

## NATIONAL ASSOCIATION OF WOMEN'S CENTERS CONVENTION

press release

The Honorable Shirley Chisholm will be the featured speaker at the First National Convention of the newly-formed National Association of Women's Centers. The conference will be held from May 29th to June 1st, 1986, in San Antonio, Texas on the campus of Trinity University.

The theme of the convention will be "A Time to Connect" in recognition of the need for organizations which offer services to women in their communities to unite. Rosemary Stauber, convention program director and Director of the Bexar County Women's Center, San Antonio, Texas says, "after several years of serving women in our own communities many women's organizations feel the need to connect with others that are also in the business of serving the needs of women."

It is expected that the convention will be the site for much of this networking as an estimated 1,500 participants share information and ideas on how to best serve their clients and take part in workshops on a diversity of topics in three areas: organization and management, programming, and personal development. Some examples would be fundraising, problems of aging and older women, career management, burnout, child care, etc.

In addition to engaging in these substantive discussions the convention will also celebrate the founding of the National Association of Women's Centers and elect members to its coordinating council. NAWC is a non-profit organization established to support, promote, coordinate and expand the work of women's centers through support, education, technical assistance, outreach and advocacy. The NAWC considers the work of women's centers to be vital: they are formed to help women take full control of their lives; they challenge the systems and attitudes which restrict women; and they strengthen bonds among all women regardless of race, class, economic status, occupation, ethnic background, age, health, sexual preference, physical ability and spiritual beliefs.

In order to receive materials on the new organization, membership or the convention contact: Rosemary Stauber, Executive Director, Bexar County Women's Center, 2300 W. Commerce, San Antonio, TX 78207 (512)225-4387.

## **HIGH-TECH BABYMAKING: ITS TECHNOLOGY AND SOCIAL, ETHICAL, AND LEGAL IMPLICATIONS**

press release

Who is the "real" mother of a surrogate-born baby?  
Who decides who can use these new reproductive technologies?  
Will the patenting of these medical procedures make them too expensive?  
Can every in-vitro clinic actually claim successful live births?

In-vitro fertilization, amniocentesis, sex-selection, embryo transfer and surrogate mothering--the new reproductive technologies--will be the focus of a conference sponsored by the Women's Research Institute of Hartford College for Women. The day-long conference, to be held on March 14, 1986, is designed to bring this important and controversial topic to a public forum to explore and discuss the far-reaching implications of these new reproductive technologies with experts in the field.

Although not a new problem, infertility is on the increase. One out of every eight couples is infertile, and the infertility rate for women between the ages of 20 and 24 nearly tripled between 1968 and 1982. Increases in sexually-transmitted diseases, environmental pollutants and drug and alcohol abuse, along with the increased incidence of child-birth delayed until the less fertile years, all contribute to this growing problem. While the recent developments in these new technologies offer a last hope for some infertile couples, they also raise many legal, ethical and social questions that have widespread implications for all of society.

According to Dr. Sharon Toffey Shepela, director of the Women's Research Institute, "it is important that professionals in a wide range of disciplines and nonprofessionals become technically literate about these medical advances, consider them carefully, and attempt to influence and monitor the impact that they will have on our future. These technologies are challenging our concepts of what constitutes family, motherhood and fatherhood. Consequently, they affect us all." The keynote speakers for the conference are Gena Corea, author of "The Mother Machine" and an internationally acclaimed expert in this field; and Dr. Barbara Katz Rothman, City University of New York, sociologist and author of "The Tentative Pregnancy." Also speaking will be physicians Dr. Georgeanna Seeger Jones of the Jones Institute for Reproductive Medicine, Norfolk, Virginia and Dr. Stephen Boyers, Yale University School of Medicine; Attorneys Angela Holder, J.D., Yale New Haven Hospital; Joseph Healy, J.D., University of Connecticut Schools of Medicine and Law; and Rebecca Dresser, J.D., Baylor University College of Medicine; medical ethicists Tabatha Powledge, former director of the

Genetics Research Group of The Hastings Center; Dr. Lisa Newton, Fairfield University; and Caroline Whitbeck, Massachusetts Institute of Technology; Marcia Saxton, Boston Self-Help Clinic; H. Patricia Hynes, Environmental Protection Agency; and people who have experienced these technologies.

Opportunity for discussion and debate will follow. For further information and registration forms contact Sharon Toffey Shepela, Ph.D., Director, Women's Research Institute, Hartford College for Women, 50 Elizabeth Street, Hartford, CT 06015 (203)236-5638.

## WRI SCHOLAR IN RESIDENCE PROGRAM

The Women's Research Institute, an interdisciplinary institute associated with Hartford College for Women, announces the second year of its Scholar-in-Residence Program. This program offers a one-year affiliation for research or other scholarly pursuit on topics related to the goal of the Institute to promote both the empirical and theoretical aspects of the new scholarship on women. Scholar-in-Residence awards are renewable as the projects warrant.

The Women's Research Institute encourages research by and about minority women, interdisciplinary and collaborative work, and accepts work from the arts, humanities, social sciences and sciences. Open to both unaffiliated and affiliated scholars, the Scholar-in-Residence program provides access to colleagues with similar interests, office space, six college consortium libraries, archives, computer facilities, and clerical staff. A grants advisory group is available to help Scholars develop possible grant support for their work. There is no stipend associated with this position, but compensated teaching may be available to qualified candidates.

Scholars-in-Residence must give a public presentation during their tenure and submit a final summary report to the Women's Research Institute.

Applicants must have completed the professional degree in their field or have experiences of comparable professional commitment. Proposals must be submitted on official forms by April 30, 1986 with appointment beginning September 1, 1986.

For further information and application form contact: Sharon Toffey Shepela, Director, Women's Research Institute, Hartford College for Women, 50 Elizabeth St., Hartford, CT 06105 (201)236-5838.

## ON CAMPUS WITH WOMEN

reprinted from the Fall 1985 issue of the publication of the same name  
published by the Project on the Status and Education of Women,  
Association of American Colleges, 1818 R St., NW, Washington, DC 20009

### Call for Information: The Climate for Women Faculty, Administrators and Graduate Students

The Project on the Status and Education of Women of the Association of American Colleges has been awarded a grant by the Fund for the Improvement of Postsecondary Education in order to develop a guide to improve the professional and pre-professional climate for women faculty, administrators and graduate students. A chilly professional climate for women on campus can result in erosion of confidence and authority, professional and personal isolation, skewed evaluations, slower advancement and lower status. Building upon our previous studies of the classroom and out-of-class climate for women undergraduates, and working in collaboration with the Office of Women in Higher Education of the American Council on Education, we will develop a report identifying both individual behaviors and institutional and departmental structures and practices that can create a chilly professional climate. The report will also include numerous specific recommendations for individual and institutional change; a design for a replicable workshop; and an institutional self-evaluation checklist.

In conjunction with this project, we are seeking information about behaviors and practices that can create a chilly professional climate. Examples of everyday behaviors included those such as the following:

- introducing or referring to men by title (Dean Smith, Dr. Jones) but dropping women's titles (Jane Brown, Mrs. Brown) thus inadvertently undermining women's position and authority;
- interrupting or ignoring women when they participate in meetings, or omitting their comments from the minutes;
- labelling women who actively defend their research as "hostile" or "aggressive," while responding positively to men who behave similarly by labeling them as "articulate" and "assertive;"
- evaluating women through the limitations of sex-based stereotypes (e.g., presuming that women do not have leadership potential, should not serve on institution-wide committees dealing with finance, etc.).

Examples of structures, practices and "customs" include, for instance:

- assigning women faculty heavier courseloads and more introductory courses than men of the same rank;
- assigning women administrators less favorable and/or less centrally located office space;
- omitting women from informal gatherings and discussions.

In addition to information about specific behaviors and practices, we are interested in materials suggesting effective responses for individuals confronted with a chilly professional climate as well as information about model programs, policies or other activities designed to increase awareness and promote change. Please send copies of studies, reports, brochures, policies, anecdotes and other pertinent information to PSEW, AAC, 1818 R St., NW, Washington, DC 20009.

#### Tips for "Superwomen" Returning to School

*Survival! The Busy Woman's Guide for Returning to School* by Lynn Keegan and Marilyn Pattillo is a practical, up-beat, how-to book for women juggling the roles of mother, wife, and worker, who now want to add student to the list, and need help coping on a day-to-day basis. Full of down-to-earth, supportive advice based on the authors' personal experiences, the book is available for \$7.95 from DataLife Resources, P.O. Box 3344, Temple, TX 76501.

#### Women... A World Survey

- If the unpaid labor of women in the household were given economic value, it would add an estimated one-third, or \$4,000,000,000,000 to the world's annual economic product.
- Rural women account for more than half the food produced in the Third World; for as much as 80 percent of the food production in Africa.
- Women are 50 percent of the teachers in primary schools, 31 percent in secondary schools, and 26 percent in higher education.
- In some countries, more than half of the women of university age are enrolled in higher education, while in some African and South Asian countries, four out of five women over 25 years of age have had no schooling at all.
- Women account for half the students studying for advanced degrees in the humanities, education, and fine arts; for one-quarter in the more powerful fields of law, engineering, and medicine.
- Ten of the eleven oldest democracies in the world waited until the 20th century to give women the right to vote: the first to grant electoral equality was New Zealand (1893) and the last was Switzerland (1971).
- Although they comprise 50 percent of the world's enfranchised population, women hold not more than 10 percent of the seats in national legislatures.
- In one-third of all governments, there are no women in the executive council which represents the highest decision-making body of the country; in those cabinets where women are included, there is usually only one woman.

These facts about women's status in the world community and more are highlighted in *Women...A World Survey*. The study pulls together data about two-and-one-half billion women--half of the world's population--from 140 nations and analyzes changes in women's situations during the postwar era (1950-85). The author, Ruth Leger Sivard, discusses women's progress toward equality in the labor force, education, health and government. The 44-page publication includes many tables, charts, graphs and maps which illustrate these changes.

Sivard's summary states, "The changes achieved in women's status during the period since World War II have been extremely uneven and, on the whole, modest. Throughout the world, women are still disproportionately represented among the poor, the illiterate, the unemployed, and underemployed. They remain a very small minority at the centers of political power." Copies of *Women...A World Survey* are available for \$5.00 (prepaid) from World Priorities, Box 25140, Washington, DC 20007. Bulk rates are available.

### U.S. Trails in Raising Women's Salaries

The U.S. is lagging behind many other countries in improving women's earnings. So says Richard B. Freeman in "Affirmative Action: Good, Bad or Irrelevant?" His data show that the earnings ratio between women and men can be improved and at a much faster rate than has been the case in the U.S. since 1970. For example, in Australia between 1970 and 1981/82, the ratio of female to male earnings has increased from 65 percent to 86 percent--a gain of 21 percent. In the U.S. in 1970, women's earnings were 62 percent of men's; in 1981/82, they were 65 percent, a gain of only three percent. Freeman suggests that the reason for such discrepancies relates to the wage-setting procedures in each country. The U.S. system operates by individual employers and unions setting wages independently. By contrast, Australian wages are set for the most part by national industrial courts. The large gain in Australian women's wages resulted from a decision to apply "comparable worth" to the entire economy. In a more centralized wage setting system, bargaining between unions and management can produce substantial changes in relative wages. Freeman concludes that while affirmative action programs in the U.S. have been generally effective in improving the relative economic position of females and minorities, additional changes in personnel policies are needed. Freeman's article appeared in the Spring 1985 issue of *Minority Engineer*.

### Who Says Women Talk More Than Men?

Contrary to the stereotypes, men talk more than women in college classrooms at Harvard University, especially when the instructor is male and the majority of students are male, according to a report in the May 1985 Journal of the Harvard-Danforth Center, *On Teaching and Learning*. "Women and Men in the Classroom: Inequality and its Remedies" by Catherine G. Krupnick notes that women did speak almost three times longer under instructors of their own sex than when the teacher was male. However, in none of the demographic circumstances studied did women talk as much as men. One possible explanation for this is that women proved to be extremely vulnerable to interruption, even through most of the interruption was done by other women. The effects of low classroom participation on development of self-esteem and self-confidence in a profession may be linked, according to the study, which offered some remedies for the situation:

- teachers need to monitor their own classroom discussions;
- get a videotape made or have a colleague sit in on class and take careful notes;
- adhere to certain guidelines which may reduce the likelihood of inequalities developing; and
- in general, make an effort to treat males and females equally by using their names frequently and asking them the same kinds of questions.

The study confirms some of the information contained in an earlier paper by the Project on the Status and Education of Women entitled *The Classroom Climate: A Chilly One for Women?* available at \$3.00 from the Project.

## OF POSSIBLE INTEREST

Studies in Human Sexuality and Society. Prometheus Books, 700 E. Amherst St., Buffalo, NY 14215.

Women in the workplace. Women's studies. Temple University Press, Broad & Oxford Streets, Philadelphia, PA 19122.

*Women and Work: An Annual Review.* Sage Publications, Inc., P.O. Box 5024, Beverly Hills, CA 90210.

*Education for Peace: A Feminist Perspective.* Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford, NY 10523.

Books by and about women. Rutgers University Press, 109 Church St., New Brunswick, NJ 08901.

DEADLINES: Mar. 24 for May-June, May 24 for July-Aug., July 24 for Sept.-Oct.

AD DEADLINES: Apr. 5 for May-June, June 5 for July-Aug., Aug. 5 for Sept.-Oct.

ADDRESSES: Send all Newsletter material **except ads** to Anne Leggett, Dept. of Math. Sci., Loyola University, 6525 N. Sheridan Rd., Chicago, IL 60626.  
Send everything else, **including ads**, to AWM, Box 178, Wellesley College, Wellesley, MA 02181.

## JOB ADS

Institutional members of AWM receive two free ads per year. All other ads are \$10.00 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.

University of Alaska, Anchorage. Applied Statistics - Two tenure-track faculty positions Fall, 1986. PhD in Statistics ( or Math with Stat emphasis) required. Candidates completing dissertation by 8/86 considered. Duties include teaching, service & research. Send resume, official transcripts, 3 recommendation letters to Personnel Services Office, Univ of Alaska, Anchorage, 3211 Providence Dr., Anchorage, AK 99508 by 3/31/86.

California State Poly Univ. Dept of Computer Science, Pomona, CA 91768. One or more asst/assoc professorships Fall, 1986. Required: PhD in Comp Sci or closely related field, but will consider individuals with MS in comp sci & demonstrated teaching ability. Knowledge & abilities: demonstrated effectiveness in teaching at both undergraduate & graduate levels. Interest & qualifications in 2 or more of following areas: software engineering, database, computer systems, artificial intelligence, computer organization & microprocessors, computer graphics, theoretical computer science. Teaching and/or industrial experience desirable. Duties: teach, do research & help with curriculum development. Send resume & 3 letters of reference to Search Committee, Tenure Track, by 3/1/86.

Occidental College. Dept of Math, Los Angeles, CA 90041. Joan R Moschovakis, Chair. Asst professorship 9/1986. Two courses per quarter (8 or 9 hours per week). Salary \$25,000 - \$28,000 depending on experience. PhD & excellence in teaching required; expertise in stat and/or comp sci sought. Expect some high quality research. Send resume & 3 letters of reference to Chair.

University of Colorado, Denver. Math Dept, 1100 14th St, Campus Box 170, Denver, CO 80202. Several tenure track asst professorships. Senior candidates may apply, but will be considered only on basis of particularly appropriate credentials. Applicants should have research interest in one or more of following areas: statistics, operations research, computational math, modeling, differential equations, computer science, or discrete math. Industrial experience desirable. Required: commitment to excellence in teaching & res. Salary competitive. Send resume & 3 letters of recommendation to Prof. Richard Lundgren at above address.

National Science Foundation, Washington, DC 20550. Openings occur periodically in the NSF Directorate for Science and Engineering Education (SEE) for employment (1-2 years) in program management or for appt to the SEE Advisory Committee. We seek the most highly qualified candidates, including women, minorities and handicapped persons to fill these positions. Required: PhD or equivalent professional experience in a scientific or engineering discipline, mathematics or science education; experience in science or engineering education at pre college or collegiate level; and knowledge of current needs, capabilities, and trends in science/engineering education. Write directly to Bassam Z Shakhshiri, Asst Director for Science & Engineering Education.

Northwestern University. Dept of Math, Evanston, IL 60201. Stewart Priddy, Chair. Tenure track assoc or full professorship 9/1986. Applicants should have outstanding records in research & teaching. Prefer those in fields which complement the Dept. Send applications, CV & names of 3 references to Chair.

Kansas State University. Dept of Math, Manhattan, KS 66506. Louis Pigno, Head. Temporary asst professorship for 1986-87 with possibility of renewal the following year. Salary commensurate with qualifications. Prefer applicants in applied math with emphasis on partial differential equations or scientific computation. Required: strong research credentials & commitment to excellence in teaching. Position starts 8/18/86. By 5/1/86 send vita & 3 letters of reference to Head.

University of Louisville. Dept of Engineering Mathematics & Computer Science, Speed Scientific School of Engineering, Louisville, KY 40292. Dr. Arthur M Riehl, Chmn. Asst/assoc professorships, 12 mos., tenure track for 1986-87. Required: PhD with specialization in Engineering Mathematics, Computer Science, Computer Science & Engineering, Computer Engineering, or in Engineering; teaching & research interests in computer software or hardware and/or applications of mathematics. Preference will be given to candidates with engineering background. Duties: research & teaching of graduate & undergraduate courses. Applications accepted until positions are filled. Send applications & resumes to Chmn.

University of New Orleans. Dept of Math, New Orleans, LA 70148. Two tenure track asst professorships. One is in stat and the other is open. Also several instructorships. Send C.V. & have 3 letters of reference sent to Hiring Committee by 2/1/86.

Bates College. Dept of Math, Lewiston, ME 04240. David C Haines, Chair. Tenure track asst professorship. Required: PhD in math & proven teaching ability at undergraduate level. Willingness to conduct res. in undergraduate environment. Duties: 9 hrs/wk of teaching undergrad. courses at level of calculus & above, as well as modest advisory & committee responsibilities. Salary competitive at asst prof level. By 3/1/86 send 3 letters of recommendation, graduate & undergraduate transcripts & when available, graduate school dossiers, to Chair.

U S Naval Academy. Math Dept, Annapolis, MD 21402-5002. Prof F I Davis, Chmn. Three year tenure track asst professorship 8/1986. Ten month salary commensurate with experience & qualifications. Research opportunities exist for augmenting salary in summer. Required: PhD, commitment to excellent teaching & ability to pursue independent research. Send resume, transcripts & 3 letters of recommendation discussing applicant's teaching and research to Chmn.

Holy Cross College. Dept of Math, Worcester, MA 01610. Two tenure track positions. Area of specialization, rank & salary are open. Teach 3 courses per semester. Generous fringe benefits, sabbatical & fellowship programs. Send undergraduate & graduate transcripts, resume & 3 letters of recommendation to L. Sulski.

Wellesley College. Dept of Math, Wellesley, MA 02181. Temporary (or visiting) position 1985-86 (possibly 1985-87). Required: PhD in math, excellence in & commitment to math research & undergraduate teaching. Send curriculum vitae & at least 3 letters of recommendation that address both teaching & research. Contact Chair, Dept of Math.

Michigan Technical University. Mathematical & Computer Sciences, Houghton, MI 49931. Dr. Martyn R Smith, Head. Tenure track & visiting positions in math, applied math & statistics 9/1986. Required: Excellent teaching & commitment to res. May be some 3-year instructorships. Apply to Head.

Wayne State University. Dept of Math, Detroit, MI 48202. Clarence Wilkerson, Chmn. Number & type of positions available for Fall, 1986 still to be determined. PhD required. Excellence in teaching & research expected. Send application, detailed resume & names of 3 academic references.

Mankato State University. Dept of Math, Astronomy & Stat, Mankato, MN 56001. F. T. Hannick, Chairperson. Tenure track position in math 9/1986. Rank & salary dependent on qualifications. Required: PhD in math educ or EdD & equivalent of masters degree in math; strong commitment to undergraduate teaching & evidence of successful teaching at both secondary & post secondary levels. Teaching load is 36 quarter hours per 9 mo academic year. Appointee will teach undergrad & grad classes in math & math educ, be active in prof organizations, demonstrate leadership in math educ, advise students, serve on dept committees & conduct research. By 4/15/86 send application, vita, teaching & res interests & 3 letters of reference to Chairperson.

Southwest Missouri State University. Dept of Math, Springfield, MO 65804-0094. Simon J Bernau, Dept Head. Several positions open: One professorship, one assoc/prof & 2 asst/prof for Fall 1986. All positions are tenure track (or tenured). Will consider visiting positions. Required: PhD in Stat or Math & commitment to teaching. For senior positions an established res record & ability to work alone are essential. Prefer candidates in analysis, applied analysis or stat, but will consider others. Send C.V. & name of at least 3 referees to Dept Head.

SUNY-Stony Brook. Dept of Applied Math & Stat, Stony Brook, NY 11794. Alan Tucker, Chmn. Openings for full, assoc & asst professors. Distinguished research record needed for senior positions; evidence of res potential for junior positions. Affiliation with new Inst for Decision Sciences possible. Send resume to Chmn.

Drexel University. Dept of Math & Comp Sci, Philadelphia, PA 19104. Dr. Loren Argabright, Head. Several tenure track openings 1986-87. Special interests: classical & modern analysis, differential equations, special functions, applied statistics & stochastic modeling, numerical analysis, combinatorics, operations research, scientific computing, computer graphics, operating systems, languages & compilers, computer architecture data-base systems, and artificial intelligence. Send resume & names of 3 references to Head.



Indiana University of PA. Math Dept, Indiana, PA 15705. Two or more tenure track asst/assoc professorships 9/1986. Duties: teach 12 semester hours of undergraduate & graduate courses per semester, assist in course & curriculum revision, advise students, serve on faculty committees & help with other academic & professional activities of Dept. PhD (or degree near completion) required. Some background in applied math & some teaching experience desirable. By 1/15/86 send application, transcripts & 3 letters of reference to Search Committee A at above address.

PA State University. The Capitol Campus, Middletown, PA 17057. Tenure track position in comp sci 8/1986. Rank & salary dependent on qualifications. Prefer PhD in comp sci or in a related field. Required: Potential for growth as a computer scientist. Persons holding MS in comp sci with experience in industry and/or teaching are also encouraged to apply for position of instructor. Opportunities to work within the Ada Educ & Software Development Center are available. Send resume, transcripts & references to Dr. Ruth Leventhal, Provost/Dean, Box AWM, at above address.

Slippery Rock University. Math Dept, Slippery Rock, PA 16057. One tenure track & one temporary full time position. Salary & rank commensurate with qualifications & experience. Salary competitive & outstanding benefit package. Required: Masters in math. Prefer PhD in math. Ability & interest in undergraduate teaching & evidence of continuing growth in mathematics. Duties: teaching undergraduate math & participating in departmental & univ responsibilities. Send vita & have 3 letters of recommendation sent to Math Search Committee at above address by 3/12/86.

Oregon State University. Dept of Computer Science, Corvallis, OR 97331. Walter G Rudd, Chmn. Asst, Assoc and full professorships, tenure track, 9/1986. Required: PhD in computer science or closely related field. Areas of expertise: programming languages & operating systems, information based systems, theoretical computer science, computer systems organization, artificial intelligence and graphics. Send complete resume including names of 3 references to Chmn.

College of Charleston. Dept of Math, Charleston, SC 29424. W L Golightly, Chmn. Tenure track junior & senior positions Fall, 1986 contingent on budget approval. Qualifications: PhD in one of mathematical sciences, commitment to undergraduate teaching & potential for continuing research. Teaching: 12 hrs/wk, course reductions for those engaged in research. Minimum salary \$26,500. Send resume & have 3 letters of recommendation sent to Chmn.

University of South Carolina. Dept of Math, Columbia, SC 29208. Dr. Colin Bennet, Chmn. Tenure track faculty positions at all levels. Dept intends to build on existing strengths & supplement these with appts in other areas, especially in applied math. Will consider applications in all areas of pure & applied math. PhD or equivalent required & all appts will be consistent with Dept's commitment to excellence in research & teaching at both graduate & undergraduate levels. Send resume including summary of research accomplishments & goals & 4 letters of recommendation to Chmn.

Office of Naval Research. Arlington, VA 22217-5000. Civil Service position in Senior Executive Service. Salary range \$61,296 to \$68,700 depending on qualifications. Responsibilities are to provide leadership, coordination & direction for \$25M Contract Research Program in Math Sciences. Scientific & technical areas of concern include, but not limited to, pure & applied math, numerical analysis, statistics, probability, operations research & computer science. Required: PhD in math, or equivalent, & significant research in one or more of above areas. Submit resume or Standard Form 171 by 4/15/86 to Office of Chief of Naval Research, Civilian Personnel Division, Code 01242P, Attn: Announcement #86-02 (AWM), 800 N Quincy St., Arlington, VA 22217-5000. For further information call (202) 696-4705.

University of Washington. Dept of Math GN-50, Seattle, WA 98195. (1) Several tenure track appts Fall 1986. Seek candidates with strong res & teaching records. Appts will be generally at asst prof level, but in exceptional cases a more senior appt is possible. Prefer those in fields of numerical analysis & optimization. (2) Several 3 year appts Fall, 1986 for recent PhDs of any age with strong res & teaching potential. Competitive salaries & standard benefits. Send C.V., list of publications & 4 letters of recommendation to Chmn, Appts Committee.

Marshall University. Dept of Math, Huntington, WV 25701. (1) One year temporary Instructorship or Asst Professorship. Masters Degree required. PhD preferred. Duties include teaching 12-13 credit hours per semester beginning 9/1986. (2) Tenure track position at asst/assoc/full professor level. Doctorate required. Strong commitment to teaching essential. For complete position descriptions contact Dr. Steven Hatfield, Search Committee Chmn. Deadline is 3/15/86 or until positions are filled.

University of Guam. Dept of Math, UOG Station, Mangilao, GU 96923. Three year contracts as asst or assoc professor. Undergraduate teaching, 12 hrs per week. Salary dependent on experience & qualifications. Relocation allowance. PhD & research activity preferred; U.S. Citizenship or permanent residency required. Duties begin 8/18/86. Send resume, official transcripts, & 3 letters of recommendation to Dr. Gail S. Mullen, Chair, Div of Science & Mathematics.

#### Search for a Secretary of the American Mathematical Society

Position: Everett Pitcher, having served as Secretary of the American Mathematical Society since 1967, has decided not to continue in that capacity past 1988. The position of Secretary is an elected office with a two year term, but traditionally the election has been uncontested. The Society is seeking a candidate for this position to take office on January 1989. It is planned that the person will be nominated for election by the Society in 1987, in order that the candidate may observe the conduct of Society business for a full year before taking office.

Duties: The Secretary of the Society is the chief policy administrator of the organization and as such must be familiar with all aspects of operation. In this respect the position should be filled by someone who has substantial knowledge of Society activities, and is willing to make a long-term commitment to the position even though the candidate and the Society have the opportunity to review their mutual satisfaction every two years. The duties of the office cannot be superposed on fulltime employment, and take about half of one's working time, with varying levels of activity during the year. Nonetheless the Secretary must be available on a regular basis to conduct business. For these reasons, it is intended that the candidate shall, with the cooperation of the Society and the employer, have a continuing arrangement of released time so that both the duties of the office and regular employment can be carried out effectively in an appropriate environment. The Society is prepared to reimburse the employing institution for the portion of time spent on Society business, and supply other benefits such as full office support and a continuing research stipend. Details of the arrangement will depend on the circumstances of the candidate and the employer.

Applications: A Search Committee with Ramesh Gangolli as chairman has been formed to seek & review candidates. Persons who wish to be considered or to make a nomination should provide supporting documentation to:

The Search Committee  
Everett Pitcher  
Box 2767  
Lehigh Valley, PA 18001

before 31 May 1986 to receive full consideration.

## Late Arrivals

Office of Naval Research, Arlington, VA. A Civil Service position in mathematical sciences is available. Salary range \$37,599 to \$67,940, depending on qualifications. Responsibilities: plan & manage program of basic contract research in fields of applied analysis, multivariable systems & control, & the modern theory of PDE's. Required: PhD in math & one year of appropriate professional experience or an equivalent combination of education & experience. Submit resume or Standard Form 171 by 4/28/86 to Office of Chief of Naval Research, Civilian Personnel Div, Code 01242P, Attn: Announcement #86-10 (AWM), 500 North Quincy St, Arlington, VA 22217-5000. For further information call (202) 696 4705.

MATHEMATICAL REVIEWS  
EXECUTIVE EDITOR

Applications and nominations are invited for the position of Executive Editor of Mathematical Reviews (NR). The appointment will be for a negotiable period of from two to five years, with the possibility of renewal, and should commence not later than September 1, 1986.

The MR editorial office is located in Ann Arbor, Michigan, near the campus of the University of Michigan, and the editors enjoy many faculty privileges at the university. MR employes eleven editors, about a dozen consultants, and over fifty other full-time personnel. It publishes MATHEMATICAL REVIEWS, CURRENT MATHEMATICAL PUBLICATIONS, special review volumes and various indexes, as well as creating the database from which these publications and the online service MathSci are produced.

The Executive Editor is responsible for all phases of the operations at MR. These include the following general areas: (1) direction of the editorial and consulting staff and of the administrative non-editorial staff; this includes determining and maintaining work and printing schedules for all publications; (2) relation with reviewers and authors as well as recruiting new reviewers; (3) maintaining scientific and editorial standards, acquiring reviewable material, and implementing general editorial policy; (4) budget planning and control, assisting the Editorial Committee in formulating editorial policy and long-range plans, and directing the implementation of new policies and procedures, including changes in computer facilities and electronic publishing techniques.

The Executive Editor works in close cooperation with the Executive Director of the American Mathematical Society.

In view of these responsibilities, the Executive Editor needs skill as an administrator and personnel manager, broad competence in mathematics, facility with the English language, interest in bibliographic work, familiarity with computers, and the freedom to do a substantial amount of travel. Credentials as a research mathematician are desirable. However, the Executive Editor should not expect to carry on a large research program while holding this position.

Applications will be welcomed from persons taking leave of absence from other positions, except for leaves entailing commitment of time to other activities.

ASSOCIATION FOR WOMEN IN MATHEMATICS  
MEMBERSHIP APPLICATION

Name and Address \_\_\_\_\_

Institutional affiliation, if any \_\_\_\_\_

Make checks payable to:

ASSOCIATION FOR WOMEN IN MATHEMATICS

and mail to: Association for Women in  
Mathematics  
Box 178, Wellesley College  
Wellesley, MA 02181

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\*Sponsoring, Category II: \$45 \_\_\_\_\_

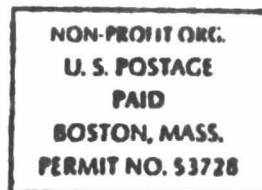
Regular: \$25 \_\_\_\_\_

\*For information on the additional privileges of  
these categories of Institutional Membership,  
please write to the AWM Office.

Contributing Member \$20 or more in addition  
to regular dues \_\_\_\_\_

Association for Women in Mathematics  
30x 178, Wellesley College  
Wellesley, MA 02181

March-April, 1986



Marie A. Vitulli  
Univ of Oregon  
Dept of Math  
Eugene, OR 97403