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FINAL REPORT

1985

EXPANDING YOUR HORIZONS

IN

SCIENCE AND MATHEMATICS

(NASA-CE-176372) EXPANDING YOUR HORIZONS IN
SCIENCE AND MATHEMATICS Final Report (Mills
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Submitted by
MATH/SCIENCE NETWORK
Math/Science Resource Center
c/o Mills College
Oakland, CA 94613

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Gloria G. Hall,
NASA Technical Officer

Jan MacDonald
Principal Investigator

FINAL REPORT

1985 "Expanding Your Horizons in Science and Mathematics"

Conference Coordination

Through the presentation of its "Expanding Your Horizons in Science and Mathematics" career education conferences for secondary school young women, the Math/Science Network continues its efforts to remove the educational, psychological, and cultural barriers which prevent women from entering math- and science- based careers.

The "Expanding Your Horizons" conferences were presented on 77 college, university and high school campuses across the United States in 1985. This year, these unique one-day conferences reached 15,500 students, 3,000 parents and educators, and involved 3,000 career women who volunteered their services as conference planners, workshop leaders, speakers, and role models.

Most of the conferences were presented on or within several weeks of the target date of Saturday, March 16, 1985. The list of conference sites, the 1985 conference poster, and the traditional souvenir button and sticker were part of the support provided by the Resource Center.

1985 Coordination

The Network's Resource Center staff - Jan MacDonald and Janet Muther - established communication with all sites in early fall of 1984. By means of regular memos to all conference committees, staff sent suggestions on local fund-raising; recruiting and orienting speakers; distributing brochures to students, teachers, and parents; and developing packets of relevant materials for students and adults to carry home from the conference. In addition to mailings during the conference period, telephone consultations were provided

as needed for special situations, with particular attention given to assisting first-time conference planners.

"Are You Tomorrow's Woman Engineer" and "If You Are a Woman in the Work Force Today, or a Young Woman Planning for the Future..." were two of the information sheets for conference participants' carry-home packets prepared in 1985 by the Resource Center staff. Printing masters of these sheets were supplied to conference sites for duplication and distribution at the conferences.

An unusual aid to the sites was developed in 1985 by the Resource Center with its special version of "The Wizard of Oz." First produced at the Oakland (CA) site in 1984, this brief, audience-pleasing adaptation is proving to be a workable alternative to the career panels suggested for the opening session by the planners' handbook.

As part of its services to the sites, the Resource Center facilitates the exchange of resources and ideas among conference committees to supplement the information provided by the planners' handbook. The staff summarized ideas and solutions to common problems from feedbacks sent to the Resource Center by the 1985 sites. The report developed is supplied to all purchasers of the handbook, along with similar reports from 1984 and 1983.

Successfully achieving the 1985 goal of increased publicity about the conferences, "Expanding Your Horizons" was featured in local newspaper articles and recommended in Parents Magazine. Also, general information about the conferences, illustrated by a slide show developed by the Montana sites, was presented to a number of educational and community groups by Ms. MacDonald, Project Director. Her audiences included a Women's Bureau of the U. S. Department of Labor "Symposium on Women and High Technology Employment" and the California Association for Bilingual Education conference on "Bilingual Education for Universal Understanding."

Goals

Institutionalization of the individual conferences is progressing slowly but thoroughly as is to be expected in a grassroots program. Committees in several areas of the United States have designed conference planning and presentation mechanisms which require minimal assistance from the Math/Science Resource Center. Committees which have developed such plans include the New Mexico Network of Women in Science and Engineering, the Utah Math/Science Network, and the Department of Special Services of the Office of Public Instruction of the State of Montana. Through the Resource Center, these groups will assist committees in other areas to achieve a firm base of financial and community support for conference presentation.

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1985
"EXPANDING YOUR HORIZONS IN SCIENCE AND MATHEMATICS"
Conferences for Secondary School Young Women

California - March 16:

CHABOT COLLEGE/VALLEY CAMPUS
(415) 422-6328 (ask for Ruth)

LOYOLA MARYMOUNT UNIVERSITY
(213) 450-5150, x9723

MILLS COLLEGE
(415) 430-2226

MT. SAN ANTONIO COLLEGE
(714) 594-5611, x525

OHLONE COLLEGE
(415) 659-6239

SAN FRANCISCO STATE UNIVERSITY
(415) 665-2302

SAN JOSE STATE UNIVERSITY
(415) 490-6284

SAN RAMON HIGH SCHOOL
(415) 838-1099

SKYLINE COLLEGE
(415) 355-7000, x364

UNIV. OF CAL. - BERKELEY
(415) 836-8367

California - Other Dates:

AMERICAN RIVER COLLEGE (3/23)
(916) 484-8215

BAKERSFIELD COLLEGE (2/23)
(805) 395-4363

BUTTE COLLEGE (3/27)
(916) 877-0495

CALIFORNIA LUTHERAN COLLEGE (4/27)
(805) 643-0450

CALIFORNIA STATE UNIV. - CHICO (2/16)
(916) 343-5931

CALIFORNIA STATE UNIV. - L.A. (4/12)
(213) 224-3486

CALIF. STATE UNIV. - STANISLAUS (2/7)
(209) 524-5960

FRESNO CITY COLLEGE (2/6)
(209) 442-8261

HUMBOLDT STATE UNIV. (11/2)
(707) 826-4951/4292

MANTECA HIGH SCHOOL (3/12)
(209) 239-9294

MT. CARMEL HIGH SCHOOL (3/23)
(619) 295-1663

PLACER HIGH SCHOOL (3/9)
(916) 823-9120

REDDING CIVIC AUDITORIUM (1/22)
(916) 244-4600, x290

SANTA CATALINA HIGH SCHOOL (3/23)
(408) 646-8458

SANTA ROSA JR. COLLEGE (Fall)
(707) 527-4331

UNIV. OF CAL. - IRVINE (3/28)
(714) 856-6891

WILLOWS HIGH SCHOOL (4/12)
(916) 934-2801

YGNACIO VALLEY HIGH SCHOOL (4/13)
(415) 672-4546 (aft. 3 pm)

Other States:

UNIV. OF ARIZONA (3/9)
(602) 296-5451

COLORADO STATE UNIV. (1/19)
(303) 761-3101

UNIV. OF CENTRAL FLORIDA (Fall)
(305) 275-2140

BOISE STATE UNIV., ID (4/25)
(208) 334-2186

UNIV. OF IDAHO (4/17)
(208) 334-2186

COLL. OF NOTRE DAME OF MARYLAND (11/9)
(301) 435-0100, x259

FALMOUTH HIGH SCHOOL, MA (4/27)
(617) 540-5432

HARVARD UNIV., MA (10/26)
(617) 495-8649

CARROLL COLLEGE, MT (3/30)
(406) 443-0967

COLLEGE OF GREAT FALLS, MT (3/23)
(406) 453-3628

DAWSON COMM. COLLEGE, MT (3/30)
(406) 365-3396

FERGUS HIGH SCHOOL, MT (3/9)
(406) 538-3448

FLATHEAD HIGH SCHOOL, MT (3/16)
(406) 857-3661

GLASGOW HIGH SCHOOL, MT (3/30)
(406) 228-2602

MILES COMM. COLLEGE, MT (3/23)
(406) 232-4814

MONTANA COLL. OF MIN. SCI. & TEC. (3/23)
(406) 496-4460

MONTANA STATE UNIVERSITY (3/23)
(406) 994-3580

ROCKY MOUNTAIN COLLEGE (3/30)
(406) 657-1081

UNIVERSITY OF MONTANA (3/23)
(406) 626-5693

WESTERN NEVADA COMM. COLL. (4/27)
(702) 885-4613

BURLINGTON COUNTY COLLEGE, NJ (5/10)
(609) 894-9311, x577/401

CAMDEN COUNTY COLLEGE, NJ (5/17)
(609) 227-7200

CUMBERLAND COUNTY COLLEGE, NJ (5/24)
(609) 691-8600, x322

OCEAN COUNTY COLLEGE, NJ (5/21)
(201) 255-4000, x320

WILLIAM PATERSON COLLEGE, NJ (1/11)
(201) 595-2245

ST. JAMES COLLEGE, NM (3/9)
(505) 988-3612

SAN JUAN COMM. COLL., NM (Fall)
(505) 667-6914

UNIV. OF NM, ALBUQUERQUE (3/2)
(505) 345-9021, x228

WHITE SANDS MISS., NM (3/6)
(505) 526-9553

ONANDAGA COMM. COLLEGE, NY (5/22)
(315) 469-3902

UNIV. OF NC, CHARLOTTE (5/1)
(704) 376-0122

NORTH DAKOTA STATE (4/13)
(701) 237-8191

CLACKAMAS COMM. COLLEGE, OR (2/9)
(503) 657-8400, x208

NEWBERG HIGH SCHOOL, OR (2/9)
(503) 538-8361, x276

OREGON STATE, CORVALLIS (4/20)
(503) 757-1728

PORTLAND STATE UNIV., OR (2/9)
(503) 224-6560

UNIV. OF OREGON, EUGENE (2/9)
(503) 345-7836

PENN STATE, CAPITAL CAMPUS (3/9)
(717) 948-6313

LITTLE WOUND H.S., SD (3/15)
(605) 455-2461

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UNIV. OF TEXAS, SAN ANTONIO (3/30)
(512) 691-5548

UNIV. OF UTAH (2/23)
(801) 968-7502

UTAH STATE UNIV. (4/27)
(801) 625-5707

CENTRAL WASHINGTON UNIV. (3/9)
(509) 963-2103

COMM. BAINBRIDGE MID. SCH., WA (3/23)
(206) 842-3096

KENTWOOD HIGH SCHOOL, WA (5/11)
(206) 872-4382

SPOKANE FALLS COMM. COLLEGE, WA (3/2)
(509) 922-4001, x3401

UNIV. OF WISCONSIN, RIVER FALLS (3/30)
(714) 425-3326/3346

Outside U.S.:

TORONTO, CANADA (11/2)
(416) 483-3568

UNIV. OF SYDNEY, AUSTRALIA (8/17)

FOR MORE INFORMATION CONTACT:

Math/Science Resource Center
c/o Mills College
Oakland, CA 94613
(415) 430-2230 "d"



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EXPANDING YOUR HORIZONS IN SCIENCE AND MATHEMATICS
Conferences for Secondary School Young Women
Summary of Reports from 1985 Conference Sites

For this third annual summary of post-conference reports from "Expanding Your Horizons" conference sites, the Math/Science Resource Center received replies from 31 of the 77 conferences on our list for 1985. Used in conjunction with our Conference Planners' Handbook, their innovative ideas will be helpful to planners of these conferences.

Facts and Figures for 1985

In 1985, there were 77 "Expanding Your Horizons" conference sites known to the Math/Science Resource Center: 28 in California; 47 in 20 other states; one in Australia; one in Canada. (See map on last page.)

This was the 10th conference at Mills College (CA), where the original conference was presented in 1976.

March continues to be the most popular month for the conferences, although 9 conferences were presented in February, and 11 in April.

Over 15,500 students, 3,000 parents and educators, and 3,000 women professionals participated in the 1985 conferences. The average number of students was 199 per conference, accompanied by 39 adults and hosted by 40 planners and workshop leaders. Budgets varied widely - from \$9,495 to \$55, with an average budget of \$2,040.

The 1985 sites were asked to rank important elements of conference planning and presentation from 0 (needs much improvement) through 3 (acceptable) to 5 (no improvement possible). (See chart on last page.) The four elements which were rated 3.5 or lower (Fundraising, Publicity, Registration, and Attendance)

by the average site elicited the following suggestions from the conference committees which were more successful in these areas:

Fundraising

Start early

Approach local industries for specific items of budget (i.e., printing)

Tap all resources possible, including: Vocational Education Act Funding,

Regional Occupation Programs, State Board of Education, County Offices of

Education, Centers for Educational Equity, women's clubs and service groups

Publicity

Send 2 press releases to every principal, directed to student newspaper and to parent club newsletter

Present a "celebrity" role model

Start early and use local/cable TV, radio and newspaper

Make and maintain good personal contacts at schools

Have workshop leaders/speakers put on hands-on workshops in schools or on cable TV as part of the EYH publicity

Registration

Registration by computer (with good program!) is very efficient

Done by school

Set up registration tables early

Prepare for crowd

On-site registration can be successful

Attendance

Follow up receipt of registration form with confirmation post card

Carefully research possible conflicting events before setting date

Other Suggestions

Use professional women's groups and their services, such as Women and Mathematics (WAM) Lectureship Program; Girl Scouts; Association of Women in Science (AWIS); Society of Women Engineers (SWE); American Association of University Women (AAUW); League of Women Voters; Business and Professional Women (BPW)

Make sure audiovisuals are up-to-date and technical support is available

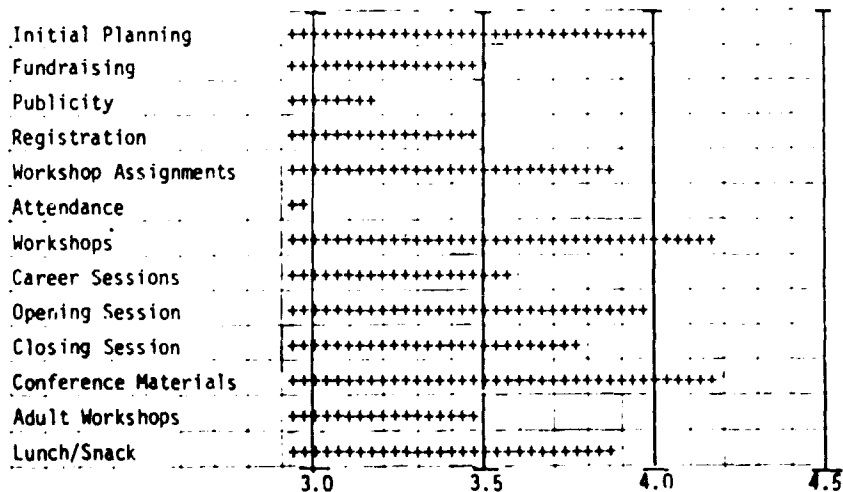
Try tours of work environments as prizes

Use adult workshops to encourage parents' support of students; highly-rated workshop resources are "Nothing But Options" videotape and EQUALS materials

1985 EXPANDING YOUR HORIZONS Conference Sites ▲



The 1985 "Expanding Your Horizons" sites which responded to our questionnaire rated elements of their presentation of these conferences from 0 (needs much improvement) through 3 (acceptable) to 5 (no improvement possible). Here are the average ratings:



Q&A

Parents

INCORPORATING PARENTS HOME

NOVEMBER 1984

Edited by Alice Siegel and Jan Hart Sousa

Experts answer your questions about health and family life.

Science Anxiety

At the beginning of the school year my twelve-year-old daughter was placed in a special science class for gifted children. Just recently she told me that she wants to drop it and go into the regular science class. Her teacher says she seems interested and has no trouble keeping up with the work. How should I handle this?

At this age, adolescents are very conscious of their sexual identities. Traditionally, science has not been considered an appropriate field for women, although this is changing. Perhaps your daughter is experiencing some social pressure not to appear too smart, particularly in what was previously considered such a "masculine" field as science.

If this is the case, you might help your daughter by showing a real interest in what goes on in the class and by stressing the importance of science in everyone's future. You might even want to do some reading about women and science along with your daughter.

Your daughter might also find it helpful to meet other girls and women with similar interests and abilities, suggests Lenore Blum, head of the math and computer science department and cofounder of the Math/Science Network at Mills College in Oakland, California.

The Math/Science Network holds yearly conferences in various parts of the country to give young women in grades seven through twelve an opportunity to meet women with careers in math and science. For more information about these conferences and the Math/Science Network's other resources, contact the Math/Science Resource Center, c/o Mills College, Oakland, Calif., 94613.