

Expanding Your Horizons in Science and Mathematics 2003-2004 Annual Report

Frosting, birthday cake, and a whole lot of candles!



Happy birthday M/SN! Oh, how the years have passed. We're not quite middle aged just yet, but we're certainly getting close. In 2004 the Math/Science Network will be 30 years old and to commemorate this wonderful occasion we're planning a huge party to celebrate and we hope that you will join us! The festivities are planned for Sunday, November 14th, 2004 at the Lawrence Hall of Science in Berkeley. What's on the agenda? Plans are still being put together, but we know that many founders of the Math/Science Network will come from near and far to be a part of the festivities. The Network will also be creating and showcasing a newly made documentary film outlining what we've been up to for the past 30 years. We also expect that several local EYH Coordinators will come from across the U.S. to celebrate this fun and monumental event in November of 2004. Mark your calendars and plan on eating some cake, sharing some memories and continuing to encourage young women to pursue math and science careers.

Conference update

During the 2003-2004 conference year, the Math/Science Network saw a slight decrease ↓ in the overall number of conferences held.

Most of the decrease came from conferences being cancelled due to a



lack of funds. Some conferences were cancelled because university funding was no longer available. A few other conferences were cancelled because sufficient volunteers could not be found to help plan and carry them out.

In 2005-2006, we plan on trying to help these and other cancelled conferences re-start. We've developed a few strategies to help these "lapsed" sites come back into the EYH family. This includes offering them a greatly reduced conference site fee (\$150) and surveying them to try to figure out how else the Network can support their efforts to get their conferences going again. We are also thinking about trying to help these lapsed sites financially. Throughout our history, we've generated ways for brand new sites to start, but we haven't paid close enough attention to helping lapsed sites get started again. In 2005 this will be one area of focus in our national office.

Even though we lost a few sites during the 2003-2004 EYH conference year, we also added a few new sites. Colorado added a new site, as did Connecticut.

"I got to make real root beer and take home a bottle to drink later. It was fun learning about mold and the fermentation process."

Accomplishments ☺

During the 2003-2004 program year our accomplishments were vast due, in part, to the dedication of our hard working Board of Directors.

The Board continues to meet every other month and help determine the direction of the Math/Science Network. In 2004 a few long-standing Board members will be retiring and recruitment efforts are underway to find new energetic women to direct and support our efforts.

There were several new programs implemented this past year including the EYH Ambassador program and additional new proposals were written to try to take EYH conferences international. In particular, one grant was submitted to the Alcoa Foundation to try to start EYH conferences in Jamaica, the Philippines, Mexico, Australia and an additional conference in the U.S. At press time, the application to the Alcoa Foundation is still pending. Additionally, the Network received a generous grant from Underwriter Laboratories to redesign our student, adult and organizational packet materials. To do this, we are planning on hiring a professional graphic designer to create new packet designs and to create a fresher, more attractive look for all of the materials we distribute to 90 to 100 conference sites. What a busy year!



EYH Ambassador Program

In the spring of 2004, the Math/Science Network received an \$18,000 grant from the Genentech Foundation for Biomedical Sciences. This grant was given to M/SN to implement a newly created program, The EYH Ambassador program. The purpose of the EYH Ambassador program is to encourage young women who have previously attended an EYH to recruit their friends and classmates to an upcoming EYH conference. In cities all across the U.S., teachers recruit students to EYH conferences by distributing conference brochures in their classrooms. Often teachers are not the best recruiters because they themselves have never attended an EYH, so they can't convey how much fun attending an EYH really can be. Once a young woman has attended an EYH her enthusiasm is contagious, therefore, the National EYH Coordinator of EYH, Stacey Roberts-Ohr, wrote the grant to create a model that encourages peer-to-peer recruitment.

Recruitment

The EYH Ambassador program will begin in the fall of 2004. The current program design calls for recruiting conference alumnae from two California EYH conferences, the San Joaquin/Stockton EYH (part of the Tri-Valley EYH consortium) and Mills College EYH in Oakland, CA. These two EYH conferences wish to increase their overall enrollment and can readily accept more young women. A special effort will be undertaken to recruit minority young women as EYH Ambassadors.

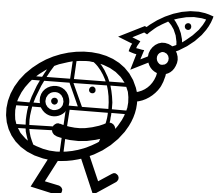
In the spring of 2004, young women who recently attended either the Mills College EYH or the San Joaquin/Stockton EYH will be sent invitations inviting them to apply to become EYH Ambassadors. Once they have written a short essay on why they want to become an Ambassador, they will then be selected and will be invited to attend 5 sessions on a Saturday afternoon at a local university. These sessions will begin in September of 2004 and will last until April of 2005. Each session will last for approximately two and a half hours. During these sessions the girls will participate in hands-on experiments and they will meet with women role models who will introduce them to new career options. They will also develop the EYH Tasting Kit. The Tasting Kit will be a recruitment tool to help convince their friends to come to an EYH. The girls will be responsible for helping develop the contents of the kit, which will include an easy science experiment, complete with its materials, information on how they can sign up to attend their local EYH, puzzles, souvenirs and a movie/video from a 2003 EYH conference. After the kits have been constructed, each girl will be encouraged to take 30 kits for distribution. They will then be asked to hand the kits out to their classmates to encourage them to attend their local conference. Each young woman will also note their

friends' reactions to the kits' contents, as well as keep track of those who ultimately decide to attend their local EYH.

Thank You

to the Genentech Foundation for giving us the funding needed to start the EYH Ambassador program. If the program is successful, we will encourage conferences to use the Ambassador program as a recruitment model for their own conferences.

"I learned a few more things on how light works."



Girls! Girls! Girls!

During the next year the Math/Science Network will continue to focus on trying to improve the way we evaluate the impact of EYH on the young women who attend them. Funders continue to stress the importance of collecting longitudinal statistical data that measures the long-term impact of our EYH conferences. This past year, we continued to collect data. With the help of Janet Hale, a graduate student from Athens, GA, we analyzed evaluation data from the Pittsfield EYH in Massachusetts. Through her analysis she found a positive correlation between the attendees' attitudes towards math and their intention to take upper level math classes. We will continue to collect longitudinal data in order to measure the longterm impact of our program.

We encourage all EYH sites to prepare and distribute the pre and post conference evaluation forms created by the Network's national office. Each site can then measure the impact of their conference on the young attendees. These pre and post

conference evaluation forms are available by calling the Math/Science Network National office.

Is there still a need for EYH conferences?

The answer is YES! Women are making great strides in certain areas of science such as biology and medicine. However, many more women need to be encouraged to enter careers in computer engineering, chemistry and physics. The Math/Science Network continues to work hard to make sure all young girls have the same opportunities as their male counterparts.

2003-2004 FAST FACTS

- Some EYH conferences are specifically designed for girls as young as 3rd grade.
- The state of Washington and the state of Texas have the most EYH conferences.
- Last year approximately 25,000 young women attended an EYH conference.
- Hands-on workshops remain the "bread and butter" of every EYH conference.
- Several states, like Alaska, Hawaii and Michigan, have no EYH conferences.
- The Math/Science Network has an on-line survey for adult conference alumnae to take. The website address is <http://echo.gmu.edu/surveys/contribute.php?survey=horizons>.
- Our program continues to be primarily focused on middle school young women.
- Averaged across all EYH's: 41% of our attendees are minorities.

Entering the age of Technology



This past year, the Math/Science Network made great strides in our use of information technology. You may notice that our website now has a more contemporary design and a new user-friendly interface. We've made many changes and improvements. We added a new area for EYH Coordinators. This new EYH Coordinators area allows coordinators to directly download a start-up packet from our website, to use to register their EYH conference. The site also enables coordinators to pay their site fees directly on-line using a secure credit card area. Another new section now contains information that coordinators can download and print out to give to their individual workshop leaders-information that will help workshop leaders lead more successful workshops.

In addition to the new coordinators' area, we've also created a separate area for *first-time* EYH coordinators. Here new coordinators can get general questions answered, learn more about conference planning, chat with existing EYH coordinators and register their new EYH.

And, for those who are "technologically challenged", a phone call to the national office can help sort out a wide variety of issues.

Our young female friends also have a new area on our website. In this area we encourage them to participate in some hands-on experiments, complete puzzles and games, and have chats with female scientists.

One of the biggest changes in our website is the development of a new e-commerce area designed to make it easier for site coordinators to purchase souvenirs for their individual EYH conferences. Want to order nifty EYH calculators, stickers or buttons? Just point and click! The new website has been very well received and we are making more and more changes every week. You can check out the redesign on our website at www.expandingyourhorizons.org.

We Salute our Volunteers

Most EYH conferences are organized by a grass-root committee of volunteers. Often conferences are organized by local AAUW chapters or by a local council of the Girl Scouts. We continue to be amazed by all of the hard-working volunteers who make our program successful.



More changes planned!

More technological changes are planned for the 2005-2006 conference year. This past year the Math/Science Network has begun to explore the feasibility of creating an on-line registration database which EYH sites can voluntarily use if they wish. This on-line database would allow all conference participants, including students, adults and workshop leaders, to register to attend their local EYH **on-line**. This would mean that students and parents would no longer need to fill out a brochure tear-off to send back to their local EYH. Instead, potential participants would simply go to the central website, fill in a simple on-line registration form and get a confirmation number back. Workshop leaders would also be encouraged to register their workshop details on-line and to indicate any special needs they might have for their

workshop. They will be asked to provide a short description of the hands-on component. This way each individual conference coordinator can make sure that the hands-on component is well conceived and attractive to the participants. Some EYH sites already use an on-line registration system, but most sites do not have this capacity. Furthermore, several EYH sites end up paying a great deal of money to individuals to input registration data, as well as develop a suitable customized database for their individual site. Finding a volunteer or a paid individual to do registration/database management can be costly and time consuming. Additionally, once this person decides to retire, the process must begin again! We hope that sites will appreciate this new service and we hope to get it implemented during the summer of 2005. A company in Texas, Socratic Learning Inc. has agreed to help us, free of charge, to develop the software and technology needed to implement the centralized on-line database and we are grateful to them for their continued guidance, support and technical advice.

From the Floor

"This was my first year here and it was really great to learn about and find other careers that I never knew existed."

"It was an awesome experience and I hope to go again next year."

"Fire fighters... inspired me to want to save lives and look forward to something new everyday."

Boring Workshops and Bad Career Advice??? ☹

There are complaints and then there are complaints! It's hard to keep a young teenage girl engaged and

entertained. Bad career advice? Ill- conceived hands-on workshops. No! No! and No! In actuality, we receive very few complaints about any of the above. The biggest complaint the young women have is usually about the grub.



Hot dogs and hamburgers, yuck! Salad bar, ugh! Sandwiches, blah! No matter how good the vittles are, the young women still complain about the lunch! Many sites continue to come up with new and creative food options. Middle TN State University EYH in Murfreesboro, TN offers the young women a nice buffet lunch of pizza and breadsticks with fresh fruit, but the young women still want more!

Other than the food, the girls continue to tell us that they love attending our EYH conferences.

Samples of 2003-2004 Workshops

*Root beer, Cheese and a Kiss
(mold and fermentation)*

*Lego Robots
(computer programming)*

*It's Slimy
(slime making)*

*It's a dog's life
(veterinary medicine)*

A Role of A Lifetime

EYH role models continue to meet with the young women at our conferences and encourage them to take as much math as possible in high school. They continue to stress that having a science, engineering or math-based career is achievable and obtainable. They share their personal stories with the girls and help the young women understand the positive aspects of studying math and science. We love their participation!

**2003-2004 EYH Conference
Statistics**

Subject	Count Estimate	Percentage	Average Number per Conference
Active Conferences	78	N/A	N/A
Registered Conferences	81	N/A	N/A
Elementary School Girls (3rd-5th)	546	2%	7
Middle School Girls (6th-8th)	20641	84%	255
High School Girls (9th-12th)	3272	13%	40
Minority Students	10127	41%	125
Total number of Students	24460	N/A	301
Adults Attending	3584	N/A	44
Role Models	4638	N/A	57
Committee Members	1013	N/A	13

Conference Attendance Fee

Average Fee: \$10.00

Fee Range: \$5.00-\$20.00

Conference Expenses

Average Expense: \$8,131.61

Expense Range:

\$1,680-\$36,124.27