Strength in Numbers:
Sustaining Girls' Interest in Math and Science

AAUW programs like the Tech Trek Science Camp for Girls are changing the status quo in math and science classes across the country. By connecting young women with like-minded peers and mentors, these programs have a powerful effect on the lives and career choices of future generations. ***Find out how you can get involved.***

By Marie Wolbach

For decades, a girl who enrolled in an advanced high school science or mathematics class would be one of a handful of girls—or the only girl—in the class. Although the situation has improved, young women in college still report feeling isolated in many science majors. In an effort to change the culture for girls and encourage them to pursue careers in science and math, AAUW promotes programs in the so-called STEM fields of science, technology, engineering, and mathematics. Members across the country have responded with excellent branch and state programs.

AAUW of California's Tech Trek Science Camp for Girls, a one-week residential summer scholarship camp for rising eighth graders, is a good example. Founded in 1998 with start-up funds from an AAUW Educational Foundation Community Action Grant, the camp was designed to encourage young women to continue studying science and math in middle school. An Educational Foundation research report, *Shortchanging Girls, Shortchanging America*, indicated that young women tend to drop out of these courses during the middle school years. In early adolescence, the research found, a focus on social acceptance may trump academic interests and achievement for many girls, even those who have previously been good students.

Tech Trek Science Camp for Girls provides a supportive environment for girls to explore and expand their interests in science and math, with hands-on activities and projects led by experienced, paid teachers in a college setting. Tech Trek's goals are

- to encourage young women of all backgrounds who are entering eighth grade to take math and science courses each year throughout high school,
- to motivate these students to attend college, and
- to inspire young women to consider careers in science, technology, engineering, or math.

To recruit students for the first Tech Trek camp, AAUW branches throughout the state sought nominations from math and science teachers, read essays from students, and conducted interviews to determine the scholarship recipients. The camp took place at Stanford University, with 150 girls enrolled. With enthusiastic support from branches and successful fundraising from local businesses and service

> **"Tech Trek was my only strongly positive, hands-on, make-science-real-and-cool experience in all of middle school, and I credit it with saving my interest in science."**
>
> —Tech Trek participant

groups, the camps blossomed and immediately began to expand to additional sites.

Today, Tech Trek camps are held on six California campuses: Stanford University, the University of California–San Diego, California State University–Fresno, Mills College, Whittier College, and the University of California–Santa Barbara. More than 4,200 girls have completed the program, which is still run by volunteers, most of whom return for several years. Further growth has been limited by a lack of camp directors and space on campuses, so the camps have a waiting list every year. Of California's 160 AAUW branches, 91 percent participate in the program.

"If it weren't for Tech Trek I might not have seriously considered pursuing a career in engineering. I had a great time engaged in scientific exploration surrounded by a group of girls who shared my interests in math and science."

—Tech Trek participant

Since its inception in 1998, Tech Trek has collected a great deal of evidence, from both parents and students, about the value of the camp experience. In end-of-camp evaluations each year, students always report how much they enjoy being around other girls who share their interest in math and science. Another frequent comment is that the experience of living on

"At first I thought I was alone in the subjects and things that interested me. Being given the opportunity to attend Tech Trek showed me that I wasn't alone. It allowed me to be more comfortable with myself and to be proud about who I am as an individual."

—Tech Trek participant

a college campus has awakened or confirmed their desire to attend college.

Parents often volunteer interesting information as well, like the mother whose daughter "did not want to work hard when so many of her friends were not interested in the same subjects at school. After receiving the news that she would attend Tech Trek, [she] did a 180-degree turn and started doing her homework with enthusiasm." That same young woman has just completed a degree in physics from a major university.

In 2006, AAUW of California began a formal assessment of Tech Trek, securing grants from the AAUW Educational Foundation (Mooneen Lecce Giving Circle) and the Morgan Family Foundation to evaluate whether the program goals were being met. An online survey asked Tech Trek participants from the first four years of the program about its effect on their attitudes and subsequent academic and personal choices. The respondents, who had all graduated from high school, were largely enthusiastic about their time at Tech Trek. Many reported that it had been the most influential personal or academic experience of their middle school years.

Other data from the survey are equally compelling. Respondents indicated much higher levels of science and math course taking in their high school years than the national average, as well as increased participation in AP science and math courses. They exceeded national norms for college attendance, with 96 percent currently enrolled in 120 different colleges and the others planning to attend. Fifty-three percent indicated that they were majoring in science- and math-oriented fields, a greater percentage than the number of women in such fields nationally. All participants credited Tech Trek for encouraging their interest in science- and math-related careers.

With a number of highly successful projects like Tech Trek in place, AAUW is working to further increase opportunities for girls in STEM through the National Girls Collaborative Project (NGCP). AAUW is encouraging all girls-in-STEM programs to register with the NGCP Program Directory at www.ngcproject.org. The directory helps groups and individuals connect with similar programs, share resources, and collaborate on STEM projects. Registered programs also may apply for $1,000 mini-grants that are now available. Please visit www.aauw.org/education/ngcp for more information about AAUW's role in the National Girls Collaborative Project and for ideas about starting a STEM project in your branch. With your help, the next generation of girls who love math and science will find these fields a welcoming place to start a career.

Photos courtesy of Tech Trek Science Camp for Girls.

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