I just recently received my latest issue of Outlook. Seeing it reminded me I’d been planning to write for some time. Long ago, I had heard that AAUW was a contributing sponsor of one of our oldest Expanding Your Horizons [science and math] conferences at San Jose State University in California. As a member of a local AAUW, I was pleased to learn this. Also, for some time I had been wondering if AAUW was involved in other EYH conferences. I finally decided to do a careful check. I was most pleasantly surprised to learn that AAUW is the main sponsor or major co-sponsor of close to 20 percent of the conferences listed on the EYH website. That seems to me a most impressive number—a situation that warrants bringing to the attention of AAUW members.

I am thrilled to learn of this most natural and appropriate connection between AAUW and EYH. Let us plan to grow this partnership! I call on all AAUW members to check out the newly designed EYH website (www.expandingyourhorizons.org) and join us as we continue to support and expand our common good works.

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Why So Few?

It seems we’ve been asking that question a lot lately: Why so few women in Congress? Why so few women CEOs in Fortune 500 companies? And—the subject of this issue of AAUW Outlook and of our upcoming research report to be released in March—why so few women in math and science careers?

Our report, Why So Few? Women in Science, Technology, Engineering, and Mathematics, examines and analyzes a wide range of research and offers effective strategies for bringing more women and girls into these fields. In this issue of Outlook, you can read up on some of the people and projects AAUW is working with to help women and girls succeed in science, technology, engineering, and mathematics (the so-called STEM fields).

Andresse St. Rose, co-author of Why So Few?, provides an overview and addresses some of the factors that contribute to the ongoing underrepresentation of women in the STEM fields. Even though girls now perform as well as—or better than—boys in math and science classes, the stereotype that “girls are just bad at math” persists and encourages girls to choose other careers.

But there is some good news. AAUW’s Nicole Callahan and Karen Peterson and Brenda Britsch, principal investigators with the National Girls Collaborative Project, share the success of the work being done by the two organizations through the NGCP. The NGCP’s growing network already includes more than 3.5 million girls and 1,500 projects nationwide. Led by regional liaisons, NGCP is paving the way for a generation of female scientists and mathematicians.

There’s also an interview with AAUW member Carol Greider, winner of the 2009 Nobel Prize for physiology or medicine, who shows just how successful women in science can be. Our senior editor, Elizabeth Bolton, talked to Greider about her experiences and how she earned the highest honor in her field.

Incidentally, Greider shared the Nobel Prize with her former mentor, Elizabeth Blackburn. Mentors are necessary to advancing women in STEM fields, a fact discussed at length by Gloria Blackwell, AAUW director of fellowships, grants, and international programs, in another article.

We know that women have much to contribute to the world of STEM, and we know that welcoming them into the fold is vital to our advancement and competitiveness as a nation. With your continued help and support, AAUW will break through these barriers for every woman who’s ever been good with numbers or fallen in love with her chemistry set.
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Click on “Get Benefits” at www.aauw.org.
Creating Opportunities for Women

AAUW has long recognized and supported the contributions of women scientists and engineers, and our new research report continues the proud tradition that we began in 1920 with a grant to Marie Curie to aid in her groundbreaking research on radium.

Why So Few? Women in Science, Technology, Engineering, and Mathematics presents recent research findings that demonstrate how social factors such as stereotypes, learning environments, and bias can diminish girls’ and women’s achievements and interests in scientific fields. It also highlights what works to encourage and support girls and women in these fields and provides practical recommendations for families and communities.

Of course, AAUW also continues to break through barriers to women’s achievement in the science, technology, engineering, and math fields in many other ways. For the 2009–10 school year, we awarded nearly $1 million in fellowships and grants to women in graduate-level science, technology, engineering, and math programs.

In addition, AAUW funded 12 Campus Action Projects at colleges and universities across the country aimed at increasing women’s representation in science and engineering. And through Community Action Grants, AAUW supported such projects as Let’s Read Math, which was started by members of Pennsylvania AAUW branches.

AAUW members are also working to open up more opportunities for girls and women in science and engineering. Through the National Girls Collaborative Project, we are connecting nationwide projects that give girls positive science and math experiences. Already, the NGCP serves more than 3.5 million girls annually in 1,500 programs, and it is growing every month. Many of these successful projects are conducted by AAUW branches and states such as Tech Trek in California, Tech Savvy in Buffalo, and Explore Your Opportunities conferences in many areas. I know these kinds of experiences can provide opportunities and change lives.

As a sophomore in high school, I took a vocational preference test and scored highest in the scientific area. I remember my teachers making a joke of it since all the occupations that I was best suited for were “male” jobs and clearly not occupations that I should be pursuing. Today, I’m proud to be leading an organization that does so much to create a world in which our daughters and granddaughters will feel free to pursue careers in any field they choose, including science and engineering.
Women continue to encounter barriers.

According to a recently updated report from the Women’s Sports Foundation, the evidence is “overwhelming” that women and girls receive both physical and mental health benefits from participating in sports and physical activity. The report, Her Life Depends On It II, finds that women and girls who take part in sports and fitness programs are less likely to smoke or use drugs and have a lower risk of developing osteoporosis, depression, and certain kinds of cancer.

Unfortunately, despite the vast body of research confirming these benefits, girls still don’t receive as many opportunities to participate in these programs as boys do. As communities across the country cut back on recess and sports and fitness programming, girls and women continue to encounter barriers to participation.

For many women, finding the time, money, and energy to exercise regularly can be challenging. Juggling work, family responsibilities, meetings, and long commutes can make it hard to squeeze in exercise without concerted effort. The report also found that girls and women of color and from economically disadvantaged backgrounds face the greatest barriers to regular exercise, and they suffer negative health consequences as a result.

Support the Paycheck Fairness Act
Urge your senators to co-sponsor and quickly pass the Paycheck Fairness Act. Call the U.S. Capitol Switchboard at 202/224-3121 or visit www.aauw.org/advocacy/issue_advocacy to take action on this critical issue.
Married Men Benefit from Women’s Economic Advances

According to a Pew Research Center report released in January, married men have experienced the greatest gains in household income. The report, *Women, Men and the New Economics of Marriage*, states that “in the past, when relatively few wives worked, marriage enhanced the economic status of women more than that of men. In recent decades, however, the economic gains associated with marriage have been greater for men.” In 1970, only 4 percent of married women earned more than their husbands did, compared with 22 percent in 2007. The household incomes of male college graduates, in particular, rose 56 percent between 1970 and 2007; single men experienced a 15 percent gain. Nevertheless, the median earnings of women workers in 2007 remained well below those of men.

Gender Matters in Higher Ed Hiring

A recent study by the Cornell Higher Education Research Institute concludes that having women on college and university boards of trustees makes a difference in terms of the number of female faculty the school hires. Specifically, it’s helpful to have at least five women trustees (or at least 25 percent of the total), as well as women in the top two leadership positions on campus. The extent of the influence of women in these leadership positions is also greater at smaller institutions. A related study found that women have made slow but steady progress in their representation on college boards, jumping from 20 percent to 31 percent between 1981 and 2007.

Paid Parental Leave for Federal Workers

As baby boomers begin to depart from jobs in the federal government—the largest single employer in the United States—the government is relying on the hiring and retention of younger workers. According to a report from the Institute for Women’s Policy Research, these workers often select jobs that provide good work-life balance benefits, which are more often available in private industry. Providing paid parental leave for federal workers, the report shows, would lead to improvements in recruitment and retention of young workers, overall preventing 2,650 departures per year among female employees and $50 million per year in costs associated with employee turnover.

Title IX Compliance: Know the Score

Use this new AAUW Program in a Box to make sure girls in your local high school have equal access to athletic participation. Visit the AAUW website for details.
Why So Few?

Women in Science, Technology, Engineering, and Mathematics

By Andresse St. Rose

Women make up half the U.S. workforce and are now well represented in many previously “male” fields. In an era in which women are increasingly prominent in medicine, law, and business, why are so few women becoming scientists and engineers?
There is no longer a difference in average math performance between girls and boys in the general school population.

The underrepresentation of women in science and engineering has been the subject of much debate in both popular and academic circles. In March, AAUW will release *Why So Few? Women in Science, Technology, Engineering, and Mathematics*, a new report that tackles this issue by drawing on the large and diverse body of academic research on women in these fields. The report profiles eight different research projects, all of which offer compelling evidence that social and environmental factors—including stereotypes, bias, and the climate of university science and engineering departments—act as barriers to women’s full participation in these fields.

“We hope the findings described in the report will lead to a more informed dialogue about women’s participation in and contribution to the critical fields of science, technology, engineering, and math,” said Catherine Hill, director of research at AAUW and a co-author of the report. Our report will also offer practical recommendations for parents, educators, and employers to attract girls and women to these fields—and keep them there.

The Power and Persistence of Stereotypes

In 1992, Teen Talk Barbie told young girls that “math class is tough.” Although many students struggle with math, this message from a popular toy only helped to reinforce negative stereotypes about girls’ math abilities, despite ample evidence of their achievements.

There is no longer a difference in average math performance between girls and boys in the general school population.¹ In high school, girls and boys earn an equal number of math and science credits—and girls earn higher average grades.² Girls’ performance on high-stakes math tests, such as the SAT and ACT, has improved, but, on average, boys perform better on these tests.

A Look at the Author

Andresse St.Rose
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Thankfully, raising awareness of bias against women can help overcome it.

Parents and educators can do a great deal to encourage girls’ achievement and interest in math and science. Here are four things to share with educators and parents in your community—and with the women and girls in your life!

**Teach children that intellectual skills, including spatial skills, are acquired.**

Encourage children to play with construction toys, take things apart and put them back together again, draw, and work with their hands. Spatial skills developed in elementary and middle school can promote student interest in mathematics, physics, and other areas.

**Fight negative stereotypes about girls’ math abilities.**

Expose students to successful female role models in math and science.

**Help girls recognize their career-relevant skills.**

Encourage girls to see their success in high school math and science for what it is: not just a requirement for going to college but also an indication that they have the skills to succeed in a whole range of science and engineering professions.

**Encourage high school girls to take calculus, physics, chemistry, computer science, and engineering classes when available.**

Girls who take calculus in high school are three times more likely than girls who do not to major in a scientific or engineering field in college. Taking higher-level science and math classes in high school keeps career options open.

Research profiled in our report shows that children become aware of the negative stereotypes about girls’ math abilities early in school and that awareness of these stereotypes can adversely affect girls’ math performance on tests. It can also lead them to assess their math abilities lower than boys do, even when they have good grades.

However, in a learning environment in which gender stereotypes are actively rejected and students are taught that math skills are not fixed but can be improved over time, girls’ math test performance improves, and they are more likely to want to continue studying math and science.

**The Culture on Campus**

In 2006 women earned almost 60 percent of all bachelor’s degrees but just 20 percent or less of the bachelor’s degrees in engineering, computer science, and physics. Research profiled in *Why So Few?* shows that small changes to improve the climate of science and engineering departments in colleges and universities, such as offering coursework that appeals to a wide range of student interests, can improve the recruitment and retention of female students. Likewise, science and engineering departments that support the integration of female faculty early in their careers with mentoring and effective work-life policies can expect to recruit and retain more women.

**Bias Limits Women’s Progress**

Women also continue to experience discrimination—both unconscious and explicit—in science and engineering fields. Research shows that women who work in traditionally male fields, including many science and engineering occupations, are more likely to be considered less competent than their male peers are. But when women in these so-called male positions are clearly successful, they are thought of as less...
likable than their male colleagues. Because being successful and well liked are both necessary for professional advancement, women scientists and engineers often find themselves in a double bind.

Research on bias also shows that most people, including those who actively reject negative stereotypes about women in science, may unconsciously associate “science” with “male” more readily than they associate “science” with “female.” These unconscious beliefs may influence girls’ interest and participation in math and science and may contribute to bias against women in school and in the workplace. Thankfully, raising awareness of bias against women can help overcome it, and when individuals become aware of their unconscious biases, they can actively work to interrupt this pattern.

From Few to Many

Increasing the number of girls and women who enter and remain in science and engineering fields is critical for both equity and innovation. “The products of scientific and technological innovation, from cell phones to pharmaceuticals, help to ease and enrich our lives in significant ways. But when women are left out of the process, science suffers, and we suffer,” said AAUW Executive Director Linda Hallman. For example, air bags were created by a predominantly male team of engineers, and early versions helped to prevent injuries for adult men but resulted in avoidable deaths for women and children. Arguably, with more female input these first-generation air bags may have been better designed to protect women and children as well as men.

Increasing the number of women in science and engineering can also help to shrink the persistent gender pay gap. “These careers give women increased earning potential and greater economic security,” said Hill. Scientific and engineering fields offer some of the most high-status and high-paying careers, and the pay gap tends to be smaller in these professions compared with other fields.

With so much to gain from women’s participation in science and technology, we can no longer afford to limit girls’ and women’s full participation in these fields. Be sure to read AAUW’s eye-opening Why So Few? to see how you can help implement the report’s recommendations for change in your classrooms, schools, and workplaces.

The new AAUW report, Why So Few? Women in Science, Technology, Engineering, and Mathematics, offers evidence that social and environmental factors act as barriers to women’s full participation in these fields.

Across the country, the number of science and math programs for girls has grown at a remarkable rate in recent years. Thanks to a nationwide network created through the National Girls Collaborative Project, these programs are able to share their experiences, learning from each other and working together to break through barriers for women and girls in the science, technology, engineering, and math fields.

“It’s intimidating being a girl who wants to go into the engineering field when it is definitely a male-dominated career.” In this short statement, this academically talented young woman captures so much about the challenges that dissuade girls from pursuing careers in science, technology, engineering, and math (STEM). But as one of the more than 3.5 million girls participating in one of the more than 1,500 National Girls Collaborative Project (NGCP) activities around the country, this young woman isn’t deterred from following her dream. As she explains, participating in a STEM program for girls helps you “find other girls with the same ambitions as you. You want to go into engineering despite what other people think, and so do they.”

Intimidation is just one of many reasons girls drop out of the STEM fields, regardless of their talent or ambitions. In computer science, engineering, and physics, for example, women represent just 20 percent of undergraduate students. And even though girls’ high school studies leave them just as well prepared as boys to major in science and engineering in college, women are much less likely to pursue those degrees.¹

Many organizations, schools, and community groups sponsor programs designed to increase girls’ interest and confidence in STEM programs, often with great local success. But to effect systemic change, there needs to be a coordinated framework in place to motivate, support, and help to sustain creative initiatives throughout the country. Together, AAUW and the NGCP are linking otherwise successful but overtaxed programs, allowing them to pool resources and share best practices for getting—and keeping—girls interested in STEM.

A National Network

The NGCP facilitates collaboration among girl-serving science and technology organizations, K-12 and higher education institutions, and industry to provide more effective opportunities for women and girls. These partner-
The desired end result of the collaborative is, of course, more and better programming for girls.

Within the overarching organization of the NGCP there are more than 1,500 individual programs, the activities and leaders of which are encouraging girls across the country to explore science and math beyond the classroom.

AAUW members lead at least 70 of these programs—a number that continues to grow as new projects to help women and girls enter STEM fields are created and older, already successful programs join the collaborative to share their expertise.

Some examples of successful, AAUW-led programs include the following:

- **The GEMS (Girls Excelling in Math and Science) club** is a science and math after-school club for fifth- and sixth-grade girls. One of the most successful AAUW-affiliated programs, GEMS has spread across the country over the last 15 years. Visit www.gemsclub.org for activity suggestions and to learn how to start a club in your community.

- **Dare to Dream: Get Educated!** is designed to encourage young Latinas to stay in high school and continue on to get a college degree. The program begins with a conference for middle school girls and their mothers/mentors on a college campus. Continued contact with the girls throughout high school encourages them to stay focused on graduating and preparing for college. Visit the website at www.latinaconference.org. Sponsored by the AAUW Elmhurst Area, Wheaton-Glen Ellyn, Lombard Area, and Downers Grove Area (IL) Branches.

- **Sharing Adventures in Engineering and Science, or SHADES**, gives highly interactive, demonstration-oriented presentations on science and engineering topics. It shows sixth- and seventh-grade girls that these disciplines are fun and interesting and offer diverse career opportunities. Visit the website at www.ornl.gov/sci/radiation_transport_criticality/shades. Sponsored by the AAUW Knoxville and Oak Ridge (TN) Branches.

NGCP Resources

One of the most valuable resources offered by the NGCP is the program directory, an online database that lists basic information about organizations working to increase the number of women and girls in science, technology, engineering, and math. The directory helps organizations and individuals network, share resources, and collaborate on projects for girls. As one volunteer explained, “Awareness of the organization and programs offered by the NGCP is greatly needed ... by girls involved with science, math, and technology. It is very much a male-dominated world when it comes to those subjects, and who said it has to be?”

The NGCP regional collaboratives offer mini-grants of up to $1,000...
to groups of two or more girl-serving organizations that collaborate on a STEM project for girls in their region. In North Carolina, for example, the Science House Girls Collaborative awarded a grant to the AAUW-led IT TECHS project, a new partnership between AAUW and the Black Data Processing Association to provide IT training and career information to minority girls. The NGCP has also set up partnerships with groups such as the Assessing Women and Men in Engineering Project, the Education Development Center, and Techbridge to disseminate strategies in informal learning and in evaluation and assessment, two key needs for programs. Participating programs are able to share best practices through collaborative events, webcasts, and other Web-based tools.

The NGCP complements AAUW’s long history of collaborative community efforts in science and engineering. “Twenty years. That’s how long the AAUW Reston/Herndon (VA) Branch has planned, organized, and served the girls in their local community through the Girls Excelling in Math and Science Conferences to encourage girls’ participation in science and technology,” reports Elizabeth Vandenbarg, an AAUW NGCP regional liaison. “And how has it survived? Collaboration.”

The desired end result of the collaborative is, of course, more and better programming for girls, girls who learn over the course of their participation exactly what they’re capable of accomplishing. “Just getting up in front of the Intel engineers and showing them our projects that we’d worked on and spent so much time on, and them asking us real questions, and we answered them, and they didn’t laugh at us,” said one enthusiastic program participant. “That was just a rush.”

For more information on how you and your branch can get involved with the National Girls Collaborative Project, visit the AAUW website. 

**Key Web Links**

www.ngcproject.org
www.aauw.org/education/ngcp
www.engr.psu.edu/awe
www.edc.org
www.nsf.gov

A LITTLE HELP ALONG THE WAY

BY GLORIA L. BLACKWELL

While mentoring encourages girls to get and stay involved in science, math, and technology, they still lack easy access to role models in these often rewarding and high-paying fields.
Traditionally, “mentoring” has referred to a relationship between a “supervisory adult and a novice student that fosters the mentee’s professional, academic, or personal development.” But over the years, that mentoring experience has expanded to include multiple and career-stage-specific mentors.

In science and math fields, mentors show students what professionals “look like”; they can dispel the images and assumptions typically associated with “science nerds” or “computer geeks.”

For girls, being mentored can be a magical experience. When they discover the excitement of building a robot, investigating their environment, exploring chemical reactions, and applying science to their everyday lives, they experience a spark that mentors can continue to stoke throughout their relationship.

As AAUW American Fellow Katarzyna Kordas said, “Creating mentorship programs between women thinking of entering science and technology areas and those already involved in the sciences would be a good way for potential scientists to learn what life as a scientist is all about or to get their feet wet in a supportive environment.”

Women in science and technology often attribute their success to the core relationship they developed with a mentor, and mentoring has been shown to be especially beneficial to girls and women of color, who must struggle through race and gender barriers to science and math fields.

What Makes a Mentor?

“Mentors fill a special role in the ecosystem of education, providing personalized and focused teaching and training precisely where and when they are needed,” wrote Barack Obama in a letter of congratulations to the latest round of winners of the Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring.
Mentoring is more than just putting two people together and letting them “work it out.”

**AAUW Educates**

**AAUW Mentoring Programs Lead to Success**

AAUW has long been a leader in offering mentoring and programs to women and girls of all ages in the science, technology, engineering and math fields. AAUW of California continues to run Tech Trek, a science camp developed to encourage middle school girls to explore the fields of math and science. While at the camp, girls participate in hands-on science projects, go on field trips, and meet with women in science and math careers.

Marie Wolbach, one of the founders, relates the story of a young girl whose life was touched by AAUW and the Tech Trek program. The daughter of an immigrant farm worker, the girl received a scholarship to attend Tech Trek at Stanford University, where she excelled. After the camp ended, members of the AAUW Gilroy (CA) Branch continued to mentor the girl, who later graduated from Stanford University.

But that story is not unusual. In a recent survey of Tech Trek participants, 96 percent were enrolled in college—even exceeding national norms for college attendance—and 53 percent indicated that they were majoring in science or math fields, a figure much higher than the national average. These successes have been brought about by AAUW members’ dedication to educating young women.

Mentors, at their essence, are guides. They are there to help younger or inexperienced people through their careers, and their support is invaluable. Bringing girls together to learn about science and technology, engaging them with professional women, and developing ongoing mentoring relationships are key strategies in getting women and girls into the science, technology, engineering, and math pipeline.

But mentoring is more than just putting two people together and letting them “work it out.” A strong commitment from both the mentor and the mentee and a mutual understanding of the roles and value each person brings are necessary to the success of a mentoring relationship. Without proper communication and an established rapport, relationships can go awry when goals and expectations don’t line up. Mentors can (and should) undergo training to increase their success rates, but, sometimes, it’s just not a good fit.

### Does Gender Matter?

Opinions vary on whether the gender of a mentor matters. It can be particularly important for K–12 girls who may be regularly exposed to traditional gender roles as they learn more about themselves and who they aspire to be. It’s essential for girls to see more than stereotypes, but that goes for boys as well. For both sexes, it’s most important that they engage with someone who is invested in their success.

As someone who’s been there, AAUW American Fellow Jennifer R. Scott believes that “female mentorship is of primary importance.” She said, “Personal interaction and correspondence with a woman who has already traveled a desired path gives the mentee perspective that is both encouraging and practical.”

Given the shortage of women currently in science and engineering fields, especially at higher levels, it may be difficult to locate appropriate mentors. But as more women enter and advance in these fields, they will be able to reach behind them and help the next generation.
In 2010, mentoring means different things to different people. It can be a formal, in-person experience or it can take place over the occasional e-mail. Technology opens up remarkable opportunities for reaching underserved populations and allows mentors and mentees to incorporate flexibility into their relationships.

E-mail, social media, and specific e-mentoring sites such as Braincake, MentorNet, and CyberMentors connect women and girls of all ages, interests, and experience levels. In addition to being borderless, online mentoring can also improve the mentee’s written communication skills and may eliminate some of the pressure of meeting face to face, leaving the mentee less intimidated and more willing to ask questions, offer opinions, and seek support.

Invariably, mentors report that they get much more out of the relationship than they give. They have not only the personal satisfaction of passing along their skills and experiences to the next generation but also the joy of seeing their mentees grow up to become success stories themselves.
In December, AAUW member Carol Greider became one of just 10 women to ever win the Nobel Prize in physiology or medicine and one of just 41 women Nobel laureates in the 108-year history of the prize. Her focus, drive, and willingness to follow her passion have led her to the top of her field—a place she’d like to see more women.

It has been widely reported that, when Carol Greider got the call informing her she’d won the 2009 Nobel Prize at 5 a.m. one October morning, she was already up and doing laundry before her spinning class. The successful laboratory scientist with two school-aged kids was just beginning a typically long day—although she did end up skipping her exercise class that morning.

Greider serves as the Daniel Nathans Professor and Director of Molecular Biology and Genetics in the Johns Hopkins Institute for Basic Biomedical Sciences, where she continues her groundbreaking work on telomerase, a cellular substance that she co-discovered while in graduate school. That 1984 discovery earned her the 2009 Nobel Prize in physiology or
medicine, an honor she shared with her former mentor, Elizabeth Blackburn of the University of California, San Francisco, and with Jack Szostak of Harvard Medical School and the Howard Hughes Medical Institute. Greider and Blackburn are only the ninth and 10th women to be so honored and the first pair of women to ever share the prize.

Life as a Scientist and Mom

While lab sciences typically require long and often unusual hours, Greider says the field can be family friendly. “It actually is a very good career when I compare myself with women who work in business, where there are certain hours that one needs to be in a job,” said Greider. “Being in academia makes it very flexible to be a mom and a scientist, because if I have to take off in the middle of the day and go to my son's play, I just go and do that.”

And when she’s with her family, she doesn’t let work interrupt her, just as she doesn’t let worries about her family interrupt her work. “I learned early on to focus on one thing, so that if I feel that the kids are where they’re supposed to be, and they’re safe, and anyone could get a hold of me if they needed me, then I can come to work and give 100 percent attention to what I’m doing at work,” said Greider.

Choosing a Science Career

It’s clear from speaking to Greider that she loves her job. She grew up as the daughter of a physicist, but she wasn’t always sure what she wanted to do with her own life. She attended the University of California, Santa Barbara, as an undergraduate with the intent of studying marine biology. Once there, however, she soon found that she wasn’t as interested in the subject as she thought she would be.

“I thought I was interested in ecology, but it was much more observational and statistical than a hands-on, manipulative thing,” she said. So she went exploring; she followed her curiosity, knocking on doors and talking to other people before she found her call-
Carol Greider joined AAUW in 2002. “I really felt like I had been treated reasonably well in my career, but when I got to Johns Hopkins, there was a lot of discussion about the issues of women in science and that sort of thing.”

Greider says she then “started to notice some of these issues,” and that she couldn’t ignore the fact that some of her colleagues were facing discrimination. “I was able to put aside my own experience and say, ok, ... let’s look at the actual data. And it’s very clear that there were very few women in the higher levels of academia.

“I don’t think that there is a lot of overt anti-women sentiment, but even without any overt action, it seems that the advancement of women hasn’t been the same as men. ... So I thought it was important to at least inform myself and try to do what I could to potentially change that. AAUW is one organization that I thought of dealing with these kinds of issues.”

When asked if AAUW was doing a good job of educating her about these issues, Greider answered immediately. “Yes, I think so!” she said.

“I landed in a biochemistry lab and realized that, wow, this really fits my intellectual style,” she explained.

The Role of Mentors

Throughout her career, Greider has benefited from a series of mentors, both male and female. Her graduate school mentor at the University of California, Berkeley, was, of course, Elizabeth Blackburn, with whom she discovered telomerase and shared her Nobel Prize.

“I chose to go to Berkeley because I wanted to work with Liz,” said Greider. “I was very struck by the things that she was interested in—telomeres—something very different than what the popular area of research was at the time.”

But Greider doesn’t believe that having a female mentor was necessary for her success. “Having Liz as a mentor helped me, and she was female,” Greider laughed. “I think having a good mentor and somebody that you can really learn from is very important, but I don't think that the gender of the mentor is important. What's important is that they promote men and women equally.”

As for her own role as a mentor, Greider currently oversees a crew of postdoctoral and graduate students in a Johns Hopkins lab. She says she’s trained 17 female and 12 male postdocs. “It’s a slight bias,” she admits. “But I don't think it’s as big as people might think.”

Greider offers the following advice to girls who want to someday pursue science careers: “The main thing is to focus on what you’re interested in and not let perceptions get in the way. Having a career in science allows you to follow things that you’re interested in, not just do the things that other people are interested in. And that reward is very great.”
A look at what’s going on at AAUW

**Wear Your Support on Your Sleeve**

Show your support for AAUW’s advocacy for women and girls—and still get a tax deduction! Contribute $100 or more to the AAUW Public Policy Fund, and you’ll receive the fund’s first ever pin and a copy of the book *Secrets of Powerful Women* (a $14.99 value), signed by Lisa Maatz, chapter author and AAUW’s director of government relations and public policy, and by another chapter author.

In 2009, the AAUW public policy staff won such victories as the enactment of the Lilly Ledbetter Fair Pay Act and the Matthew Shepard and James Byrd, Jr. Hate Crimes Prevention Act. With your support, imagine what we can do in 2010! AAUW has already taken the lead in advocating for the Paycheck Fairness Act, the Healthy Families Act, and the Pathways Advancing Career Training Act.

To donate, please use the envelope enclosed in this magazine, make checks payable to AAUW Funds, and select Public Policy Fund on the envelope. For donations of $100 or more, please subtract $14.99, the value of the book, from your tax-deductible amount.

**AAUW Prepares for Equal Pay Day**

Equal Pay Day is quickly approaching! It takes place this year on Tuesday, April 20, and AAUW members and supporters across the country are already planning events to mark this symbolic day when women’s wages catch up to men’s wages from the year before. If you haven’t yet started organizing educational and promotional events for your community, it’s not too late! Visit the AAUW website for suggested activities and other planning and event resources.

**Notice of 2010 Annual Meeting**

In accordance with the 2009 bylaws of the American Association of University Women, Inc., adopted at the convention in St. Louis, AAUW must hold annual meetings. This year, a very short annual meeting will be held on June 27, 2010, at 9 a.m. in conjunction with the June AAUW board meeting at the national office (1111 Sixteenth St. NW, Washington, D.C.). Because there are no noticed issues, no voting will occur at this brief meeting; however, members are welcome to attend.

**Campus Action Projects Break Barriers**

Twelve teams from around the country were selected for 2009–10 Campus Action Project grants to implement projects based on recommendations from AAUW’s new research report, *Why So Few? Women in Science, Technology, Engineering, and Mathematics*. The teams offer mentoring and lectures to current college students and professional development and networking opportunities to women of all ages. Visit the AAUW website to learn more. Thanks go to the Mary Ann Ahrens-Iowa Giving Circle for supporting the grants.
Members Make a Difference Mentoring Girls

Every day, dedicated AAUW members across the country are working to open up opportunities for girls and women in science, technology, engineering, and math fields. Through the National Girls Collaborative Project, many branches have donated their time, talent, and resources to mentor girls, reward their academic achievement, and put together events that actively engage girls and introduce them to all the career options available to them.

“My daughter said she was being teased for answering questions in chemistry and math. This was a generation after I’d experienced the same treatment as the only girl in physics class. Simply hoping for the situation to change was clearly not making a difference,” says Marie Wolbach, the AAUW NGCP regional liaison in California.

Anja Whittington, the AAUW NGCP regional liaison for Maine, adds, “My involvement in NGCP has allowed me to help young girls in a field that, when I was a young woman, would have benefited from more female role models.”

As AAUW continues to build a database of best practices, sharing your program experiences with others in the AAUW community and beyond is vital to increasing the knowledge base for successful science and math programming. AAUW’s NGCP regional liaisons can help you connect with others in your region and across the United States. For more information, please visit www.aauw.org/education/ngcp.

Support future generations of women and girls by participating in one of AAUW’s planned giving programs. Contact Carol Rognrud, rognrudc@aauw.org or 202/728-7627.
To promote equity, we must fully understand all of its barriers and the best ways to break through them. Donors who contribute to the Eleanor Roosevelt Fund support research on those barriers. AAUW’s newest research report, *Why So Few? Women in Science, Technology, Engineering, and Mathematics*, was funded in part by the Letitia Corum Memorial Fund. This fund honors the legacy of Letitia, a longtime AAUW of California member leader, whose commitment to AAUW continues to inspire advocacy and research on the issues that matter in the lives of women and girls.

Recently, the Eleanor Roosevelt Fund received the largest bequest in its history from Marguerite Sherwin of Palm Beach, Florida. Marguerite was a cherished AAUW Legacy Circle member who, like many women before her, remembered AAUW in her estate plans.

You, too, can make a difference by supporting AAUW research and providing a greater understanding of the many barriers that harm women and how to break through them. Please consider joining the hundreds of women in our Legacy Circle who have included AAUW in their will. You may wish to provide your attorney with the following suggested wording.

For more information, contact Carol Rognrud at rognrudc@aauw.org or 202/728-7627.

*After fulfilling all other provisions, I hereby give, devise, and bequeath to AAUW (tax ID# 52-6037388), a charitable organization duly existing under the laws of the District of Columbia and located at 1111 Sixteenth St. NW, Washington, D.C. 20036, ______ percent of the residue and remainder of my estate or $____ (if specific amount).*

*It’s Never Too Late to Join Us*

In 1955, when Janis Cripe graduated from Beloit College in Wisconsin, she received a card from AAUW inviting her to become a member. Although she didn’t join at that time, she did save the card. Last year, Janis found the card among some of her college mementos and decided it was time to accept AAUW’s offer—54 years later! She is now a member of the AAUW Howard County (MD) Branch. Welcome, Janis!
Carol Pletcher, a former vice president at Cargill and the current president of Pletcher Incorporated, was awarded an AAUW American Fellowship in 1977. The fellowship came in the middle of a seven-year stretch in which, according to Carol, the three most significant things in her life all happened. Between 1973 and 1979 Carol completed her doctorate and welcomed her two sons into the world.

Beyond helping Carol cover her school and child-care costs, the AAUW fellowship nurtured her sense of obligation to pass the honor forward. This is just what Carol has been doing by creating new fellowship and scholarship programs and by mentoring women around her. In 2003 Carol set up a graduate fellowship with the College of Biological Sciences at the University of Minnesota, which has awarded funds to six women to date. Additionally, she has helped establish two other scholarships for students pursuing higher education at Ohio University and Juniata College.

As a mentor, Carol is happy to sit down with any woman and talk about the realities of the academic and business worlds. More women than she can count have wound up heading back to school to pursue higher education after talking with Carol.

In 2003 Carol was awarded the Outstanding Achievement Award by the University of Minnesota, an honor that has pushed her to continue achieving. She said, “After receiving the award, it was like I could not slow down. There were many expectations about what you can do, so you can’t not do them.”
Alumnae: Then and Now

CINDY MOSS
Both these photos show Cindy Moss with a bat in her hand. Cindy received an AAUW fellowship to assist in her pursuit of a doctorate at Brown University in 1986–87.

These days, Cindy is still working with bats! She is now the director of the neuroscience and cognitive science program and a professor at the University of Maryland.

WENDY KEENEY-KENNICUTT
Wendy Keeney-Kennicutt received an AAUW American Fellowship in 1981–82 while pursuing a doctorate in oceanography at Texas A&M University.

Currently, Wendy is a teacher and associate director of the first-year chemistry program in the Department of Chemistry at Texas A&M University.

Find out about AAUW fellowships and grants online.
AAUW’s newest media campaign aims to garner support for pay equity via the social media site Twitter through a Twibbon, which is a small image that overlays Twitter avatars (profile pictures).

Incorporating these kinds of campaigns within social media helps to supplement on-the-ground support and action and allows online supporters to express themselves. Individuals on Twitter can promote their support of a certain cause while recruiting their friends or others to join them. And it all starts with one little image.

Why add this Twibbon to your avatar? In addition to supporting AAUW’s efforts to see true pay equity laws enacted, you’ll become part of a larger movement that supports social equality. Equal pay is only one of the issues AAUW addresses, and it has wider repercussions because equal pay issues aren’t just women’s issues—they affect everyone.

Contact your senators and urge them to co-sponsor the Paycheck Fairness Act. Then, get your Twibbon and let your followers on Twitter know why you have it. Tell them just how important pay equity is and why they should contact their senators and get their Twibbons, too!

—Katherine Broendel

FROM THE AAUW BLOG:
“I FELT EMPOWERED TO GET THE SALARY I WANTED”

A student participant made this statement after a role-play exercise conducted during an AAUW/WAGE Project Start $tart $mart salary negotiation workshop that I attended two weeks ago at Harvard University. This workshop, hosted by the Harvard College Women’s Center, is the third one the university has offered. Gina Helfrich, assistant director of the center, was behind its implementation. “We decided to bring $tart $mart to campus because it empowers students to become their own best advocates,” Gina said. “Every year, as they consider life after college, students discover that they need the information, tools, and skills to negotiate their salaries. We felt that $tart $mart provided all of those things along with a sharp and realistic look at the continuing gender wage gap and strategies that individuals can take to combat it.”

—Kate Farrar

AAUW ON YOUTUBE

Check out AAUW’s YouTube channel at www.youtube.com/aauwinfo for videos from staff and other AAUW friends. We will be bolstering our online presence by adding new videos regularly. Lisa Maatz, AAUW director of public policy and government relations, kicked things off with a few videos about her work to advance AAUW priorities. March brought videos honoring women who have made history.
For women all over America,

the numbers don’t add up.

- **77¢**: Women earn 77¢ for every dollar earned by men.
- **66+**: At ages 66 and older, women are twice as likely as men to be poor.
- **17%**: Women make up 51 percent of the population, but only 17 percent of elected officials are women!
- **1 year**: Just one year out of college, working women already earn less than their male colleagues earn.

**100% unacceptable!**

Join AAUW today—and be the change we need!
The AAUW World Medical Card

Whether you’re on the way to the grocery store or on vacation in Fiji, the World Medical Card can protect you against preventable medical errors.

Everyone tries to be organized, but do you know where your health information is, and can you access it right now? Often health information is scattered among many different providers and facilities. Immediate access to your information can be vital in many different situations—both emergencies and daily living.

Recently, a World Medical Card subscriber was on vacation in Scandinavia. The man had hemophilia and was cut in an accident. Although conscious and alert, he could not communicate his condition to the medical personnel attending to him. They could not understand the word “hemophilia,” which is very similar to a completely unrelated word in the native language. He produced his World Medical Card, and the medics opened it and found the World Health Organization coding of his condition to guide his treatment. This man credits the World Medical Card for saving his life!

While this is a dramatic example, every day someone we know needs to be able to provide their complete and accurate medical information. Whether it’s going to a new doctor or specialist or in an emergency, we all need immediate access to our critical medical information. It can save your life!

The World Medical Card system provides you with three powerful tools, each ideal for different situations. Together, they protect you anytime, anywhere. These unique tools help you securely manage and conveniently access your personal medical information in three ways:

**onCard** – A sealed wallet card contains your most vital health information, including diagnoses, medications, allergies, and emergency contacts. International World Health Organization coding ensures that doctors and health personnel receive accurate information about your health.

**onWeb** – A secure online site where you store and manage all of your personal information—allowing you to control and retrieve your personal and health information easily at any time.

**onMobile** – Using your web-accessible cellular phone, you can access your information through your password-protected onMobile service, regardless of language barriers—in English or 13 other languages.

**AN INCREDIBLE OFFER:** AAUW has arranged for each member to receive a FREE World Medical Card. Simply collect your medical information and AAUW member ID number and go to www.aauw.org/wmc to register.

Additionally, your immediate family members can each have their own World Medical Card for $20 per year, a $23 savings off the regular price of $43. There is also a special AAUW friend discount of $35 per year—an $8 savings—when your friends go to www.aauw.org/wmc and click on the “nonmember” box.

Each World Medical Card subscription generated by AAUW provides a donation from World Medical Card to your local AAUW branch. Visit www.aauw.org/aauwWMC.cfm to learn how your branch can raise funds for local programs.

Take control of your health. Register for your World Medical Card today!

www.aauw.org/wmc
AAUW and AARP have partnered in a campaign to inform and educate women about long-term care planning. The campaign aims to help women

• Have more choices down the road
• Be less overwhelmed in the future
• Be ready to help family and friends

Deciding to create a long-term care plan and sharing it with loved ones is a positive step toward a brighter future for you and your friends and family. Yet AARP research shows that women between the ages of 45 and 64 often fail to plan for their long-term care.

AAUW is seeking branches and individual members (ages 45–64) to participate, either in person or via webinar, in this important project. Volunteers will take part in four sessions ranging from 1 to 2 hours each.

AAUW also needs facilitators (any age) who can schedule meetings and help facilitate a baseline survey before and after reviewing the tool-kit materials.

If you are interested in either volunteer position, please e-mail aauw-partner@aauw.org. Let’s help make the planning process easier for ALL women!

(This project is NOT designed to sell insurance and specifies no products whatsoever!)
If You’re Ready to Save on Auto Insurance

Good news! You belong to the Right Group.

MetLife Auto & Home has been selected as the preferred property and casualty carrier for members of the American Association of University Women. AAUW members who choose MetLife Auto & Home are eligible to apply for a variety of discounted products, including:

- Auto insurance
- Renter’s insurance
- Homeowners insurance

AAUW members are also able to benefit from the following:

- Easy and affordable payment options, including using your AAUW credit card.
- Identity Protection Services at no additional cost.*

To learn more call today: 1-877-638-7515
Be sure to mention your group’s program code BO2

*Identity Protection Services are not available in NC, nor to auto customers in NH. Not available to customers with all policy forms.

MetLife Auto & Home is a brand of Metropolitan Property and Casualty Insurance Company and its affiliates: Economy Fire & Casualty Company, Economy Preferred Insurance Company, Metropolitan Casualty Insurance Company, Metropolitan Direct Property and Casualty Insurance Company, Metropolitan General Insurance Company, Metropolitan Group Property and Casualty Insurance Company, and Metropolitan Lloyd’s Insurance Company of Texas, all with administrative home offices in Warwick, RI. Coverage, rates, and discounts are available in most states to those who qualify.
AAUW and The Princeton Review
Are Partners in Educational Programs

Get to know your local Princeton Review!

WE OFFER:

- Test-taking strategy sessions
- On-campus practice tests with personalized score analysis
- “How to get into graduate school” workshops
- “Anatomy of the MCAT” and more!

How can these programs help your branch raise funds for local branch initiatives?

Princeton Review experts are eager to partner with your branch to provide our outstanding test preparation programs to your community, high schools, and local colleges and universities and help you raise funds for your local branch initiatives.

To reach your local Princeton Review representative, call 800-2Review (800-273-8439) or e-mail anthonyr@review.com today!

DON’T FORGET: AAUW MEMBERS AND THEIR FAMILIES GET 15%* OFF OUR CLASSROOM OR ONLINE COURSES AS WELL AS ONLINE TUTORING FOR THE SAT®, ACT®, PSAT®, MCAT®, LSAT®, GMAT® AND GRE®.

Visit PrincetonReview.com/AAUW or call us to learn more.
2010 marks the 25th anniversary of the National Conference for College Women Student Leaders! Since its inception in 1985, this conference has offered students the perfect opportunity to hone their leadership skills and become empowered to implement change on campus and in their communities. The conference will be held June 3–5, 2010, at the University of Maryland, College Park. Help make the 25th NCCWSL our best one yet by supporting student attendance and the conference itself.

www.nccwsl.org