

# "SUPERSTAR OF SERVICE"

**CAROL WOOD  
LEADS NATIONAL  
MATHEMATICS GROUPS  
BY WILLIAM HOLDER '75**

Carol Wood, Edward Burr Van Vleck Professor of Mathematics, worries that academe will lose many talented men and women with recently minted doctorates in mathematics because the job market is so bad. Public universities, in particular, have been hard hit by state budget crises and aren't hiring. Private universities' endowments are down as well.

The American Mathematical Society is trying to help—at least at the margins. As chair of its board of trustees, Wood is deeply involved. The AMS sounded an alarm last year, doing a quick survey to confirm that rumors of lost positions were true, with a follow-up study this year. The National Science Foundation and the Simons Foundation responded to the crisis by creating more postdoc positions that will help keep young scholars on an academic track—for a while.

"We want the mathematics community to be healthy. This matters to me," she says. That sentiment may explain why Wood has devoted a significant portion of her professional career to service and now occupies some of the top volunteer posts in the country.

In addition to her position with AMS, the nation's professional society for research mathematicians, she is chair of the U.S. National Committee for Mathematics, which is affiliated with the National Academy of Sciences and represents the United States in the International Mathematical Union. In that capacity she attended the IMU meeting in Bangalore and the 2010 International Congress of Mathematics last summer in Hyderabad, India.

These are positions most often held by mathematicians from Berkeley, Harvard, and

other bastions of mathematics prowess, according to Mark Hovey, chair of Wesleyan's mathematics and computer science department. He says that Wood is "an absolute superstar of service" in mathematics who has done a great deal to carry Wesleyan's name around the world.

She plunged into service more than 20 years ago when women were scarcer among research mathematicians than they are today. Bringing women into the profession was one of her early concerns, and she became president of the Association for Women in Mathematics (AWM), serving from 1991–'93 when the organization grew rapidly, to more than 2,000 members.

"Her steady, guiding hand and strong leadership gave enormous stability to the association, which had grown from its grassroots beginning in 1971, when women were practically invisible in the mathematical community," says Georgia Benkart, professor emerita of mathematics at the University of Wisconsin-Madison and current president of the AWM.

"Carol Wood was very instrumental in helping to bring about the acceptance of women by the mathematical community," she adds. She described Wood as dedicated to ensuring that women maintain visibility and to seeing that their accomplishments are acknowledged on the national scene. She also was the driving force behind the establishment in spring 2010 of the AWM M. Gweneth Humphreys Prize for mentoring, a tribute to her undergraduate teacher who inspired her to pursue a career in mathematics. Other opportunities soon came along.

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One of those opportunities was service as a judge with the Intel Science Talent Search (formerly named for Westinghouse when she first participated in the early '90s). The program selects 40 of the nation's most tal-

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ented high school seniors in science, math, and technology for two days of judging and awarding of prizes in Washington, D.C. The quality of their work, Wood says, is astounding. Recent mathematics projects have been at the level of doctoral research.

Andrew Yeager, professor of medicine and pediatrics at the University of Arizona and head judge of the Intel Search, says that Wood not only provides expertise for entries in math, she also shares insight into projects in many other areas.

"Dr. Wood is a seasoned member of the judging team," he says, "and takes a tremendous amount of time from her other responsibilities to participate in this very important activity. We want people, like her, who are upbeat and ask probing questions, who can assess the overall knowledge of students in science and math, and their ability to solve problems."

High school students, he adds, see her as an inspiring model of professional achievement.

The U.S. National Committee for Mathematics is currently engaged in an international effort to educate mathematicians, including mathematics teachers in de-

veloping countries that lack capacity in this area. Cambodia, for example, has one math PhD in the whole country and saw its math community destroyed by the Khmer Rouge. Now volunteer mathematicians are helping Cambodian math teachers improve their skills during summer courses, and some young mathematicians are studying in doctoral programs abroad. The program is planning expansion to other countries in Central America and Africa.

"It's exciting for mathematicians to go where there is talent and interest, and to help build back the infrastructure," Wood says.

Making the mathematics profession still more inclusive remains one of her top goals. Women are better represented than was the case earlier in her career, but "there's plenty to do," she says. At Wesleyan, four of the department's 12 mathematics faculty are women, but women have yet to break into the senior ranks of faculty at some of the nation's leading research universities. The picture is worse for African Americans and other mathematicians of color.

Throughout her career, service to the profession has provided her with ongoing variety and challenge, though she acknowledges it sometimes comes at a cost. Balancing teaching and research, commitment to one's institution and to the profession, and family life—all remain a continuing challenge for women in mathematics.

When she became president of the AWM, she wrote:

"In a way, the demands on AWM remind me most of the microcosm of a woman's life, with her multiple roles, and with all the people whose demands, needs, and expectations make it both necessary and difficult to determine what matters and what doesn't.

"My external duties have led me to know and appreciate mathematicians of all kinds," she says, "but an added benefit is that this experience allows me to claim with high confidence that my own department is special, and my own colleagues are the best." **UPFRONT**

Professor Carol Wood is working with colleagues worldwide to improve math teaching in developing countries.



BILL BURKHART