

Professor Caren Diefenderfer, Hollins University

Caren Diefenderfer is recognized for her work as an outstanding teacher and leader both as a professor at Hollins University and in the larger mathematical community. Her contributions to the teaching of mathematics are deep and broad. She has inspired students at many different levels – high school and college students, math majors and math-averse students, students in her classroom and students nationwide whom she has never met.

At Hollins University, Caren has distinguished herself as a well-loved professor who teaches the broad range of mathematics courses. In addition to her success with the standard curriculum (students write poems about her linear algebra class), she has designed and taught eight special topics courses in mathematics, and supervised 49 senior mathematics projects. She has been an active participant in the Hollins First-Year Seminar program, developing and teaching four interdisciplinary courses, most recently Games, Puzzles, and Logic, designed to help students succeed in college by improving their skill in written and oral communication. Students of many different interests and abilities speak enthusiastically of her influence on their lives.

First at Hollins, and later in the wider community, Caren has been a pioneer in the field of Quantitative Literacy (QL), whose goal is to ensure that all college students become quantitatively “literate” by taking interesting courses at an appropriate level. This movement has had an unquestioned impact on the mathematical education of the current generation of college students. The Hollins QL program served as a model for other colleges and universities, and Caren has traveled around the country giving talks and leading workshops, including an MAA PREP Workshop, on the topic. She was one of the founders of the MAA’s SIGMAA QL and has served as its chair and as president of the National Numeracy Network (NNN). In addition to published articles, Caren is a coauthor, with Bernie Madison, Stuart Boersma, and Shannon Dingman, of *Case Studies for Quantitative Reasoning* (2009) and a co-PI with these coauthors of an NSF grant to study Quantitative Reasoning in the Contemporary World.

Not content to focus on one area of mathematics education, Caren is also an expert on the teaching of calculus, especially at the high school level. Starting in 1999 as an Exam Leader at the College Board’s Advanced Placement Calculus Reading, she steadily worked her way up to serve as Chief Reader of the exam for four years, 2003-2007, and is recognized as one of the most influential Chief Readers in the history of the program. Based on this work, and on her own experience teaching calculus at the college level, she and Roger Nelsen edited an MAA volume, *The Calculus Collection: A Resource for AP and Beyond* (2010). She also served a co-PI on a recent NSF TUES grant to the MAA on instruction and placement in algebra and precalculus.

Throughout her career, Caren has also been a tireless advocate for young women learning mathematics. She has forged a successful career doing just that in many different ways, culminating in her recent position as the Director of the Tensor/Women and Mathematics

program at the MAA. This program provides grants for projects designed to encourage young women to study mathematics – hosting a conference, organizing a club, providing mentors for students – grants that, by design, have had an impact on the lives of many young women.

The MAA recognizes the great positive impact of Caren Diefenderfer on mathematics and non-mathematics students, at her own institution and across the country, and is honored to present her with the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics.