



**National Center for  
Technological Literacy®**  
Museum of Science, Boston

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## **DR. CHRISTINE M. CUNNINGHAM**

**Vice President of Research & Educator Resource Development  
Museum of Science**



A desire to understand why some populations are underrepresented in technology, engineering, and science and a commitment to make these disciplines more accessible have grounded Dr. Cunningham's career. She is particularly interested in ways that the teaching and learning of engineering, science, and technology can change to include and benefit from a more diverse population.

From early memory, Cunningham planned to teach. She attended Yale College, where she graduated summa cum laude with a bachelors and masters degree in Biology, and Cornell University, earning a Ph.D. in Science Education, Curriculum, and Instruction. Her dissertation, which studied the effect of teachers' subject-matter knowledge on their classroom practice and curricular innovation, was awarded the American Educational Research Association Division K Dissertation Award and the National Association for Research in Science Teaching Dissertation Award.

As a Research Associate at Cornell, Dr. Cunningham led several curriculum and teacher professional development projects related to environmental science education. Her transition from science to engineering and technology education was an offshoot of her interest in women in science, which led her to consider why there are so few women in engineering. Dr. Cunningham directed the Women's Experiences in College Engineering (WECE) project, the first national, cross-institutional, longitudinal study of factors contributing to women's persistence in an engineering major. Women in engineering (21,000 students per year) at 53 universities nationwide were surveyed for three years about their background information, their experiences in and perceptions of engineering, and their use of engineering support resources.

The WECE study convinced Dr. Cunningham that K-12 experience with engineering and technology was essential—to help *all* children understand the world in which they live, which increasingly depends on technology and engineering, and to encourage youngsters to consider these fields as possible careers. Her work at the Center for Engineering Educational Outreach at Tufts University focused on providing professional development for K-12 technology, science, and mathematics teachers to foster the integration of engineering into their subject areas.

Dr. Cunningham currently works as Vice President of Research & Educator Resource Development at the Museum of Science, Boston in its National Center for Technological Literacy. She is the founder of the *Engineering is Elementary (EiE)* project—a curriculum and

professional development project designed to integrate engineering and technology concepts into elementary school science lessons. As the EiE project director, she heads a dynamic team that creates curricular materials, leads teacher professional development, and conducts educational research about how people learn and teach engineering and science. Her projects span the elementary to college educational continuum. To date, EiE materials have reached over one million children and 15,000 teachers.

Dr. Cunningham has secured over \$19 million in grant funding to support her work. Currently, she serves on the National Academy of Engineering Committee on K-12 Engineering Education Standards, as the Chair of the Advisory Committee for the National Center for Engineering and Technology Education, and is a past-President of the American Society for Engineering Education K-12 and Pre-college Division. Most recently she has been honored with the Outstanding Leadership Award from the American Society of Engineering Education K-12 Division, the Mary Margaret Scoby Award from the Technology Education for Children Council of the International Technology Education Association, and cited as a Leader to Watch by the International Technology Educational Association.