

2012 Math and Science Partnership (MSP) Learning Network Conference

Framing Effective Teaching in STEM

Speakers' Biographies

(alphabetical order)

Edward (Ted) Britton

Associate Director, Senior Researcher and Evaluator, STEM Program, WestEd

Dr. Edward Britton is an Associate Director, Senior Researcher and Evaluator in the STEM Program at WestEd. Dr. Britton has been Principal Investigator of several major research projects, including an international study of new ways to address the subject-specific needs of beginning mathematics and science teachers. With the National Commission on Teaching and America's Future, he recently completed a knowledge synthesis about professional learning communities involving STEM teachers. His earlier research includes helping design international procedures for analyzing curriculum materials during the Third International Mathematics and Science Study (TIMSS). As Project Manager for Mary Budd Rowe of the University of Florida during the 1980s, Britton developed the first CD-ROM in science education and produced videotapes for the professional development of science teachers. During the late 1970s, he taught all the science courses for grades 7–12 at a rural junior-senior high school in Florida. Britton has authored or edited almost 20 books, reports, and curriculum products and has written more than 40 articles and papers. He received a B.S. in chemistry and education, an M.S. in analytical chemistry, and an Ed.D. in science education from the University of Florida.

Katherine J. Denniston

Acting Division Director, Division of Undergraduate Education, National Science Foundation

Dr. Katherine Denniston is acting Division Director of the Division of Undergraduate Education (DUE) at the National Science Foundation. Her early research career included positions as a post-doctoral fellow in the Department of Genetics at the University of Wisconsin–Madison, as a Senior Staff Fellow at the National Cancer Institute and as a Research Assistant Professor in the Division of Molecular Virology and Immunology of Georgetown University. In 1985, Dr. Denniston joined the faculty of Towson University, holding a variety of positions over the years. She was Professor of Biological Sciences and for many years held the position of Director of the Center for Science and Mathematics Education. In that position she ran a variety of programs including the Maryland Collaborative for Teacher Preparation II, the Maryland Educators' Summer Research Program, and the Maryland Governor's Academy for Science and Mathematics Teachers. Denniston and co-authors Robert Caret and Joseph Topping have published a chemistry text for allied health majors, beginning in 1989. This text, *General, Organic, and Biochemistry*, is in its seventh edition. In 1999, Denniston became the Associate Dean of the Fisher College of Science and Mathematics and in 2008 was appointed Associate Provost of the university. She spent the 2002-2004 academic years as a program officer in DUE at NSF and returned to DUE as Deputy Division Director in 2010, prior to her current role as the Acting Division Director. Dr. Denniston received a B.A. in Biology from Mansfield University and a Ph.D. in Microbiology from The Pennsylvania State University.

Joan Ferrini-Mundy

*Assistant Director, Directorate for Education and Human Resources,
National Science Foundation*

Dr. Joan Ferrini-Mundy is Assistant Director of the Directorate for Education and Human Resources at the National Science Foundation, a position she has held since February 2011, in which she is responsible for management of this directorate. She serves as a member of the NSF senior management team and is involved in strategic planning and leadership for the scientific and education mission of the NSF. Prior to her appointment as assistant director, she had served the Foundation in a number of management capacities since 2007. In connection with her agency-wide responsibilities, Dr. Ferrini-Mundy serves as NSF's science, technology, engineering, and mathematics (STEM) workforce development goal leader for the Office of Management and Budget's Priority Goal Initiative. From 2007 through January 2010, she was a member of the National Science and Technology Council's (NSTC) Subcommittee on Education, and currently serves on two task forces of the NSTC Committee on STEM Education. She is currently a member of the Mathematics Expert Group of the Programme for International Student Assessment (PISA) commissioned by the Organisation for Economic Cooperation and Development (OECD), and in 2007-2008, representing NSF, she served as an ex officio member of the President's National Mathematics Advisory Panel, and co-chaired its Instructional Practices Task Group. Dr. Ferrini-Mundy holds an appointment at Michigan State University (MSU) as a University Distinguished Professor of Mathematics Education in the Departments of Mathematics and Teacher Education. Her research interests include calculus teaching and learning, mathematics teacher learning, and mathematics and science education policy at the K-12 level. Dr. Ferrini-Mundy received a Ph.D. in mathematics education from the University of New Hampshire.

Patricia O'Connell Johnson

Team Leader, Mathematics and Science Partnership Program, U.S. Department of Education

Patricia Johnson is the Team Leader for the Mathematics and Science Partnership program, U.S. Department of Education. In 17 years of Federal service, she also has managed the Javits Gifted and Talented Students program, the Eisenhower Math and Science National programs, and the Fund for the Improvement of Education. Before joining the Department of Education, she served as: associate director of Project 2061, a part of the American Association for the Advancement of Science (AAAS); director of academic programs with the Center for Talented Youth at Johns Hopkins University, which serves more than 5,000 students in programs around the world; and as an education specialist with the Maine Department of Education. She received her undergraduate degree in anthropology from Beloit College, a Master of Arts in Teaching in museum education from George Washington University, and a Master of Education degree in education policy from Harvard University.

Cora Marrett

Deputy Director of the National Science Foundation

Dr. Cora B. Marrett is Deputy Director of the National Science Foundation. Since January 2009, she has served as NSF's acting Director, acting Deputy Director, and Senior Advisor, until her confirmation as Deputy Director in May 2011. Before her appointment as acting Director, Dr. Marrett was the Assistant Director for Education and Human Resources (EHR). In EHR, she led NSF's mission to achieve excellence in U.S. science, technology, engineering, and mathematics (STEM) education at all levels, in both formal and informal settings. From 1992 to 1996, she served as the first Assistant Director for the Social, Behavioral, and Economic Sciences (SBE) directorate. Dr. Marrett earned NSF's Distinguished Service Award for her groundbreaking leadership of the new directorate. From 2001 to 2007, Dr. Marrett was the University of Wisconsin System's Senior Vice President for Academic Affairs. She also served concurrently as Professor of Sociology at the University of Wisconsin–Madison. Before joining the University of Wisconsin, she was the Senior Vice Chancellor for Academic Affairs and Provost at the University of Massachusetts Amherst. Dr. Marrett holds a Bachelor of Arts from Virginia Union University, as well as a Master of Arts and a doctorate from the University of Wisconsin–Madison, all in Sociology. She received an honorary doctorate from Wake Forest University in 1996, and was elected a fellow of the American Academy of Arts and Sciences in 1998 and the American Association for the Advancement of Science in 1996. In May 2011, Virginia Union University awarded Dr. Marrett an honorary degree as a distinguished alumna.

James H. Shelton III

Assistant Deputy Secretary for Innovation and Improvement, U.S. Department of Education

James Shelton is the Assistant Deputy Secretary for Innovation and Improvement at the United States Department of Education, managing a portfolio that includes most of the Department's competitive teacher quality, school choice and learning technology programs, housed in the Office of Innovation and Improvement. Previously, he served as a program director for the education division of the Bill & Melinda Gates Foundation, managing the foundation's national programs and work in the northeast region of the United States. Shelton has also been a partner and the East Coast lead for NewSchools Venture Fund and co-founded LearnNow, a school management company that later was acquired by Edison Schools. He spent over four years as a senior management consultant with McKinsey & Company in Atlanta, Ga., where he advised CEOs and other executives on issues related to corporate strategy, business development, organizational design, and operational effectiveness. Upon leaving McKinsey, he joined Knowledge Universe, Inc., where he launched, acquired and operated education-related businesses. Shelton holds a bachelor's degree in computer science from Atlanta's Morehouse College as well as master's degrees in business administration and education from Stanford University.

Ann Whalen

*Director; Program and Policy Implementation in the Implementation and Support Unit
in the Office of the Deputy Secretary, U.S. Department of Education*

Ann Whalen serves as the Director of Program and Policy Implementation in the Implementation and Support Unit in the Office of the Deputy Secretary for the United States Department of Education. As Director, Ann manages a team of Program Officers to serve as the single point of contact at the Department of Education for an over \$50 billion portfolio of formula and discretionary grant programs consisting of the State Fiscal Stabilization Fund, the Race to the Top State program, the Race to the Top Assessment program, and the Education Jobs Fund. Prior to her work in the Implementation and Support Unit, Ann was a Special Advisor to the Secretary of Education, working across offices within the Department to develop and implement policy, regulations, guidance and programs including: School Improvement Grants, State Fiscal Stabilization Fund, Teacher Incentive Fund, and Race to the Top Assessment. Ann came to the U.S. Department of Education with Secretary Duncan from Chicago Public Schools (CPS) where she most recently served as Deputy to the Chief Education Officer and focused on the development and implementation of curriculum and instruction strategies, as well as district level policies and guidelines since 2006. From 2003 to 2006, Whalen served as Deputy Director of Special Initiatives for the CEO of CPS, working on the development and implementation of system-wide policies, assessments and professional development. Prior to her time at CPS, Whalen worked as a Project Administrator for the Department of Planning and Development for the City of Chicago, where she coordinated with community groups, developers, City officials, and other City agencies in anticipating and meeting the development needs of neighborhoods on the City's south side. Whalen has also worked as a Research Assistant for the Consortium for Research on Information Security and Policy (CRISP) at the Center for International Security and Cooperation at Stanford University where she received her B.A. in Political Science.

Suzanne Wilson

University Distinguished Professor at Michigan State University

Dr. Suzanne M. Wilson is a University Distinguished Professor at Michigan State University (MSU), where she currently serves as Chair and Professor in the Department of Teacher Education. Prior to joining the faculty at MSU, Wilson was the first director of the Teacher Assessment Project, which developed prototype assessments for the National Board for Professional Teaching Standards. Dr. Wilson served as a Commissioner on the Carnegie Commission on Mathematics and Science Education (2007-09), chaired the teacher quality subgroup, National Research Council/National Academy of Education Ed in '08 White Paper Project (2008-09), and has also served on several National Research Council committees, including the Teacher Preparation Study (2005-2009), Review and Assessment of the Health and Productivity Benefits of Green Schools (2005-06), and the Board on Science Education (2011-present). Dr. Wilson has written on teacher knowledge, curriculum reform, educational policy, and teacher learning. Her current work concerns documenting what teachers learn in innovative induction and professional development programs housed in museums; exploring various measures of teaching and teachers' understanding that might be used for teacher education and education research; and understanding the contemporary and jurisdictional battles over who should control teacher education and licensure. She is author of *California Dreaming: Reforming Mathematics Education* (Yale, 2003), and editor of Lee Shulman's collection of essays, *Wisdom of practice: Essays on teaching, learning, and learning to teach* (Jossey-Bass, 2004). Dr. Wilson is also a committed teacher, having taught undergraduate, MA, and doctoral classes in educational policy, teacher learning, and research methods. Her undergraduate degree is in History and American Studies from Brown University; she also has a M.S. in Statistics and a Ph.D. in Education from Stanford University.