

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

NATIONAL RESEARCH COUNCIL
NATIONAL SCIENCE RESOURCES CENTER

MATHEMATICS/SCIENCE PARTNERSHIP WORKSHOP ON
ASSESSMENT OF LEARNING AND ACCOUNTABILITY
May 16-18, 2004

BIOGRAPHICAL SKETCHES OF PRESENTERS

Dr. George W. Bright is Professor Emeritus at the University of North Carolina at Greensboro (UNCG). After receiving degrees from William Marsh Rice University and the University of Texas at Austin, he taught mathematics and mathematics education courses for over 30 years at Northern Illinois University, Emory University, University of Calgary, University of Houston, and UNCG. In 1999-2000 he was a program officer at the National Science Foundation.

He has published many journal articles, chapters, and books on topics ranging over mathematics research, mathematics education research, teaching practices, technology, and assessment. He was co-author of the first monograph of the Journal for Research in Mathematics Education. He has been Principal Investigator for a wide range of grants totaling over 25 million dollars. He was co-chair of the Special Interest Group/Research in Mathematics Education of AERA, president of the Research Council for Diagnostic and Prescriptive Mathematics, and general editor of the 2002-04 yearbooks of the National Council of Teachers of Mathematics.

Over the past few years, he has focused attention on classroom assessment; that is, the process of gathering information about students' thinking, interpreting that information to infer what students know, and then adjusting instruction to match the needs of those students. With Jeane Joyner, he has recently completed professional development materials that help middle grades and high school mathematics teachers understand and use classroom assessment (NSF grant #9819914).

Diane Ebert-May is a Professor in the Department of Plant Biology at Michigan State University. She provides national leadership for promoting professional development, evaluation and improvement of faculty, postdoctoral teaching fellows, and graduate students who actively participate not only in their own discipline-based research, but also in creative research about teaching and learning. Her work in assessment of undergraduate learning in science guides many individual faculty as well as science departments throughout the country. She actively contributes to the educational initiatives of Ecological Society of America, served on the National Research Council (NRC) Committee on Evaluating Undergraduate Teaching, NRC Committee on Integrating

Education with Biocomplexity, is a Fellow of the American Association for the Advancement of Science, and is an advisory board member of the National Academy of Engineering's Center for the Advancement of Scholarship on Engineering Education.

Ebert-May's research group is developing and testing a web-based concept-mapping tool that enables students in science courses to visualize their thinking online as well as to receive immediate feedback (NSF Assessment funding). In addition, she is the PI of project FIRST II (Faculty Institutes for Reforming Science Teaching), an NSF-funded national dissemination network for science faculty professional development in teaching through biological field stations and marine labs. Her recent publications describe active, inquiry-based instructional strategies, research designs, and assessment. She teaches plant biology to majors and environmental science to non-majors in large courses. Ebert-May recruits and mentors science postdoctoral fellows in teaching and learning funded projects. Her plant ecology research continues on Niwot Ridge, Colorado, where she has conducted long-term ecological research on alpine tundra plant communities since 1971.

Marge Petit is Senior Associate at the National Center for Improving Educational Assessment (Center for Assessment). Prior to assuming the position of senior associate of NCIEA, Ms. Petit served as Deputy Commissioner of Education, Vermont Department of Education. From September 1999 to February 2000 she served as Acting Commissioner of Education. Ms. Petit provided statewide leadership with Commissioner Marc Hull in the implementation of the quality aspects of The Vermont Equal Educational Opportunity Act. This included providing the leadership for the implementation of Vermont standards and assessment system, a statewide emphasis on the use of data for planning and focusing resources on student learning, public reporting, the development and implementation of the Vermont School Quality Standards, the implementation of a transitional system of identifying and supporting schools based upon student performance results, and the development of Vermont's accountability system. In addition, she provided leadership in the development of the Vermont Mathematics Initiative. Her work was built upon nearly a decade of research and development in standards-based restructuring efforts at the classroom, district, state and national levels, and 23 years of experience as a classroom teacher primarily in mathematics and science. Her experience in the implementation of a standards-based system extends from the classroom, to research and development, to state and national level policy. She has served on a number of national advisory boards, projects, and panels: NAEP – TIMSS – PISA Comparison Study; summer writer for the STEM Project; the advisory board for the Voluntary National Mathematics test; the advisory board for the Achieve Middle School Mathematics Project; the planning committee for the 2004 NAEP Mathematics Framework; the RAND Mathematics Study Panel; NCTM Middle School Assessment Sampler; and is currently a Member of the Mathematical Science Education Board (MSEB) and the Center of Education Board at the National Research Council.

Diana C. Pullin holds both a J.D. degree and a Ph.D. in Education from the University of Iowa. She is Professor of Education Law and Public Policy at Boston College. She also coordinates the Joint Degree Program in Law and Education at the Law School and the Lynch School of Education at the University.

Dr. Pullin has served as Dean of the School of Education at Boston College and as Associate Dean of the College of Education at Michigan State University. Dr. Pullin was staff attorney, co-director, and then President of the Center for Law and Education of Cambridge, Massachusetts and Washington, D.C.

Dr. Pullin has represented students, parents, teacher unions, school districts, state department of education employees, and colleges and universities in legal disputes concerning education. She served as plaintiffs' attorney in the landmark federal court litigation (*Debra P. v. Turlington*) which established that students required to pass a written test to receive a high school diploma must be protected through the use of valid and reliable tests covering only knowledge they have had a fair opportunity to learn.

The relationship between law and education in the pursuit of equality of educational opportunity and educational excellence has always been the cornerstone of Dr. Pullin's work as a practicing attorney, scholar, and teacher. The focus of her scholarship is the impact of legal requirements on educators and educational institutions, as well as the impact of social science theory and research on judges, legislators, and public policy-makers. She has also made contributions to the development and implementation of ethical and professional standards of practice in education. She served as a member of the Committee on Educational and Psychological Testing of the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. This committee revised the primary standards of practice for the testing industry, a set of standards also widely used in resolving legal disputes over testing. In addition, she served as a member and co-chair of the Joint Committee on Standards for Educational Evaluation, a committee of representatives of all the major professional associations in education, which developed the professional standards of practice for program evaluation and personnel evaluation in education.

She is co-editor of the interdisciplinary scholarly journal *Educational Policy* and the author of numerous articles, book chapters, books, technical reports and appellate court briefs. Her publications have addressed educational testing, the rights of individuals with disabilities, education reform, and the preparation and licensing of educators. She serves as a private consultant to other attorneys, civil rights and education advocacy groups, national professional associations, state education agencies, research consortia, and private companies. She has also served as an expert advisor to the National Research Council of the National Academy of Sciences on panels addressing issues concerning minority students in special education and gifted education, the impact of standards-based education reform on students with disabilities, and the pursuit of educational excellence and testing equity.