Consensus Study on Modernizing Mathematics Education for Grades 9-14

Committee Meeting #3, June 22-23, 2026

Open Session

Speaker Biographies

STEPHANIE ARNETT is an AI/Machine Learning Engineer Staff at Lockheed Martin with six years of experience applying machine learning to computer vision and signal processing problems. She earned a bachelor's degree in Applied and Computational Mathematics with an emphasis in Acoustics from Brigham Young University and is currently pursuing a master's degree in Mathematics at George Mason University.

SHAKIYYA BLAND is a longtime math educator and curriculum specialist with deep experience in culturally responsive education. She was an Albert Einstein Distinguished Educator Fellow in 2020-22, serving in the U.S. Congress and U.S. Department of the Interior. A consulting educator, she has over 27 years of experience in math instruction, in roles including PreK-12 mathematics educator, district mathematics curriculum instructional learning coach, and certified Courageous Conversations About Race practitioner. Her curriculum unit, which applies geometric modeling to address food apartheid and promote food security, was published in *High School Mathematics Lessons to Explore, Understand, and Respond to Social Injustice*. She also has written culturally responsive lessons, strategies, and research in partnership with BetterLesson, Inc. Master Teacher Project and Balance the Equation: A Grand Challenge for Algebra 1. Her research focuses on the histories of STEM using Africana, Indigenous, and other culturally responsive ways of contributing to and applying scientific and mathematical literacies. She holds a B.S. in Education, M.A. in Education–Curriculum Instruction and Mathematics, and an Ed.D. in Education Leadership. Shakiyya joined Just Equations as Math Educator in Residence in 2022.

JUSTIN COLE is a mathematics educator at Eaglecrest High School in the Cherry Creek School District in Aurora, Colorado, with over 22 years of experience across multiple districts in the Denver metro area. He has served in a variety of leadership roles, including instructional coach, STAR mentor, Culturally Responsive Education Specialist, and High School Math Curriculum Specialist, and has led district-wide professional development in both Denver and Cherry Creek School Districts. At the state level, Justin contributed to the Pathways Task Force

for Colorado Math Leaders and the Colorado State Standards Revision Committee. He holds degrees from the University of Michigan, Regis University, and the University of Northern Colorado, and has been honored as Educator of the Year and recipient of the Colorado Council of Mathematics Outstanding Teaching Award. Today, Justin presents on Modernizing Mathematics Education in Grades 9–14, exploring how pedagogy, systems, and mathematical pathways can better prepare students for college, career, and beyond.

DANIEL FISHER is a theoretical physicist who has worked in a spectrum of areas of statistical physics and biology. He is particularly known for his research on the physics of disordered material, including spin-glasses, superconductors, nano-scale transport, quantum phase transitions, solid-state analogs of friction, and mechanical fracture. For this body of work, he was awarded the Onsager Prize in 2013. Fisher was born in London, England in 1956 and emigrated to the US at age nine. He graduated from Cornell University with a degree in mathematics and physics and obtained his PhD from Harvard University in 1979. Fisher began his professional career as a Member of Technical Staff at AT&T Bell Laboratories, moved to Princeton as a Professor of Physics, and subsequently to Harvard. In 2007 Fisher joined the faculty at Stanford where he is now the David Starr Jordan Professor of Science in Applied Physics and, by Courtesy, in Biology and Bioengineering. With interests also in public policy, Fisher has served on the governing boards of the Union of Concerned Scientists, Common Cause, and the Bulletin of Atomic Scientists.

MERCEDES FRANCO is a Professor in the Department of Mathematics and Computer Science at Queensborough Community College, The City University of New York (CUNY). She earned a Ph.D. in Applied Mathematics, with a minor in Computer Science, and an M.S. in Applied Mathematics from Cornell University, as well as a B.S. in Mathematics from Universidad del Valle (Cali, Colombia). Much of her work has focused on making mathematics more accessible, meaningful, and connected to students ’futures through high-impact educational practices and curricular reform. At Queensborough, Mercedes played an instrumental role in institutionalizing Service-Learning and Undergraduate Research (UR) as high-impact practices and in launching the research-in-the-classroom modality. She also led the development of the UR program within her department. Mercedes serves as co-Director/co-PI of the NSF-funded programs Mathematical Sciences Research Institute Undergraduate Program (MSRI-UP) and the Center for Undergraduate Research in Mathematics (CURM). These programs have been recognized by the American Mathematical Society with the Mathematics Programs that Make a Difference Award. She is also the author of the book chapter “Examining Human Rights through the Lens of Statistics,” published in Mathematics for Social Justice: Focusing on Quantitative Reasoning and Statistics (MAA Press, 2021).

JOANIE FUNDERBURK is the Strategic Alliance Director and T3 Instructor Support Manager for Texas Instruments’ Educational Technology division, advocating high quality STEM

education and leading a network of 300 T3 instructors who provide professional learning across North America. She holds a B.S. in Mathematics and an M.A. in Administrative Leadership and Policy Studies from the University of Colorado. Joanie taught high school math for nearly two decades in Colorado and New Jersey, then spent seven years as Cherry Creek School District's Mathematics Coordinator before contributing five years to Student Achievement Partners and Illustrative Mathematics, driving professional learning and facilitator certification. A respected math leader, she serves on the NCSM Board, chaired NCTM's Membership and Affiliate Relations Committee, and held three terms as President of the Colorado Council of Teachers of Mathematics, as well as chairing two Colorado math standards revisions.

ADRIAN KUHLMAN has thirteen years of experience teaching mathematics, including eight years at the community colleges in Maryland and Pennsylvania and five years at a public high school in the South Bronx, spanning courses from developmental and introductory mathematics through AP and college-level calculus. His work is grounded in making mathematics available, accessible, and welcoming, both in his own classroom and as a precalculus course coordinator leading curriculum and faculty development. Working toward this mission, he has created his own instructional videos, built online homework systems, and designed in-class activities, such as a "Cross Campus Continuity Maze" and "L'Hôpital's Rule Battle Bots," to replace passive lectures with active, hands-on problem-solving. Adrian is also a doctoral candidate in Mathematics and Statistics Education at North Carolina State University, where his dissertation is a narrative-driven, play-based intervention exploring how participant engagement can enhance conceptual understanding of the derivative.

BRITTANY MILLER is a High School Math Content Specialist with Washington County Public Schools, Maryland. Prior to this role, she taught at both the middle and high school levels, including courses from Grade 6 through AP Calculus. In addition to her district work, Brittany has contributed to statewide mathematics education initiatives, including serving as co-chair of the Maryland Launch Years Task Force, a member of the Secondary Mathematics Pathway Course Standards and Frameworks Validation Committee, and a member of the University System of Maryland Task Force focused on revising mathematics admission requirements. Brittany graduated from Towson University with a Bachelor's Degree in Mathematics, from Frostburg State University with a Master's Degree in Educational Leadership, and is currently pursuing a Doctorate of Education in Educational Leadership at Bowie State University.

MARY MOONEY is a Mathematics Consultant with the Wisconsin Department of Public Instruction, where she collaborates with school districts, higher education institutions, families and professional organizations to strengthen mathematics teaching and learning across Wisconsin. Before joining DPI, Mary spent 20 years with Milwaukee Public Schools as a high school mathematics teacher, University Teacher-in-Residence, and Math Teaching Specialist. She is passionate about fostering positive mathematical identities and expanding equitable access to

high-quality mathematics education for all students. Mary serves as President-Elect of the Association of State Supervisors of Mathematics and is actively engaged in state and national mathematics education initiatives.

DREW NUCCI joins us from the Math, Science, and Engineering group in WestEd's Center for Teaching and Learning. Drew taught secondary mathematics for 18 years before earning a PhD in Mathematics Curriculum & Instruction from the University of Washington. For 9 years, Drew was the Director of the EE Ford Summer Teachers' Colloquium, a professional development program focusing on the development of content knowledge. He also taught learning science courses and mathematics methods courses in the University of Washington Secondary Teacher Education Program. Currently, Drew leads the qualitative research in the AmplifyGAIN Center, one of four national IES-funded AI R&D centers in the US. His team investigates how math and science teachers learn, understand, and use generative AI for instructional tasks. Drew has disseminated the Center's findings on generative AI adoption and use in national and international AI and Math Ed conference proceedings and in practitioner-oriented briefs, podcasts, and webinars.

CHRIS OEHRLEIN has been teaching in two-year colleges for 32 years, the past 4 as department chair. He was the 2002 CASE/Carnegie Oklahoma Professor of the Year, was a finalist for the 2025 Oklahoma Foundation for Excellence in Teaching in the Regional University/Community College category, and most recently was one of the four 2025 American Mathematical Association of Two-Year Colleges (AMATYC) Teaching Excellence awardees. He was his college's representative to the Oklahoma State Math Task Force and was part of the Oklahoma Launch Years Initiative team. He is now AMATYC President-Elect. Chris also umpires small college baseball and assists in teaching and evaluating at clinics for high school and college baseball umpires.

DANIEL OZIMEK is an Associate Professor of Practice in Mathematics at Saint Joseph's University. He earned his Ph.D. in Curriculum and Instruction (Mathematics Education) from Penn State University, where his research examined how nursing students conceptualize dimensional analysis in medication dosage calculations. He previously served as a project leader for a national, multidisciplinary task force focused on improving quantitative education practices in nursing and continues to be actively engaged in this work. His current research explores nursing faculty confidence and self-efficacy in teaching mathematics concepts for nursing practice.

RALPH PANTOZZI began teaching in grades 6 - 12 classrooms in New Jersey in 1992. He has worked as a supervisor of instruction and instructional coach in multiple public and private schools in New Jersey, and as a teacher educator at Rutgers University. In 1999 he received the

Princeton University Prize for Distinguished Secondary School Teaching. Ralph developed technology resources for high school classrooms through Key Curriculum Press, and was coauthor of *Exploring Calculus with the Geometer's Sketchpad.* In 2017 he was named a Presidential Awardee in Mathematics Teaching by the National Science Foundation, and in 2024-25, Ralph was an Albert Einstein Distinguished Educator Fellow at the Library of Congress. Ralph has worked regularly with the National Museum of Mathematics (MoMath) in NYC after winning their Rosenthal Prize for Innovation and Inspiration in Mathematics Teaching in 2014. He is currently serving as the NCTM representative to the MAA Committee on the Teaching of Undergraduate Mathematics. He holds a B.A. in mathematics from Rutgers College and an Ed.D. in mathematics education from Rutgers University.

JEREMY ROSCHELLE serves as Executive Director of Learning Sciences Research at Digital Promise, where he conducts research on the future of learning with technology. Dr. Roschelle is a Fellow of the International Society of the Learning Sciences, and is internationally known for his work on artificial intelligence in education, computer-supported collaborative learning, learning mathematics with technology, and on scaling up research-based technologies. Over his 30+ year career, he has authored about 200 publications and has about 27,500 citations. He currently leads the K-12 AI Infrastructure Program at Digital Promise.

NANCY SATTLER Ph.D., is Dean Emerita and adjunct mathematics faculty at Terra State Community College in Ohio and an Adjunct Professor at Walden University. With more than four decades of experience in mathematics education and academic leadership, she has led initiatives in curriculum development, assessment, strategic planning, and institutional improvement at both the community college and university levels. A nationally recognized leader in mathematics education, Sattler is a past president of the American Mathematical Association of Two-Year Colleges (AMATYC) and co-chaired the writing teams for AMATYC's landmark IMPACT document and its subsequent equity chapter. She serves on the Advisory Board for Carnegie Math Pathways and has contributed to numerous national efforts focused on mathematics pathways, student success, and teaching and learning in postsecondary mathematics. Sattler brings extensive experience in academic program review, curriculum evaluation, assessment, and shared governance, with a particular focus on advancing student success and improving mathematics education for diverse learners.

CAMERON SUBLETT serves as the Senior Director of Innovation and Incubation at FoundationCCC, where he leads efforts to design, test, and scale initiatives that expand educational access, improve outcomes, and increase economic opportunity across California's community colleges. Prior to joining FoundationCCC, Sublett served as Associate Professor and Executive Director of the Education Research & Opportunity Center at the University of Tennessee Knoxville. He is a nationally recognized expert on policies and practices supporting

student transitions into and through community colleges. His research is funded by the National Science Foundation, the Institute of Education Sciences, and published in Review of Higher Education and Research in Higher Education. From 2008-2017 he served as a faculty member at Santa Barbara City College –a 2013 Aspen Prize for Community College Excellence Co-Winner.

COLLEEN SMYTH is a high school math teacher and department chair in Portland, OR. She focuses on teaching courses in Data Science and Statistics and has supported her district's recent curriculum adoption and scope and sequence work. Colleen holds an M.S. in Data Science and a B.A. in History from Willamette University and an M.Ed. in Instructional Practice from Lipscomb University.

JEAN STEINER is a Data Science Tech Lead at Google and has worked in technology for nearly 20 years, following a short career in academic mathematics. Jean has worked in a range of roles (from executive team member and other leadership roles to individual contributor), across several organizations at Google (including Workspace, Ads, Maps, Health, Finance G&A). She has also worked at Skillshare (online learning), Flatiron Health (oncology data analytics) & several universities. Jean loves using data to make products better, building data products, developing data intuition and culture and everything in between. Jean enjoys mentoring and speaking on career development and STEM education. Her teaching experience ranges from graduate and undergraduate level mathematics to creative movement and gymnastics for children and adults.

NATALIE WOODS is an award-winning educator and leader with over 35 years of experience in mathematics and science education at the high school and college levels. She currently serves as an Albert Einstein Distinguished Educator Fellow in Washington, D.C., contributing classroom expertise to national STEM education initiatives. She holds a bachelor’s degree in Physics and Mathematics Education from Arizona State University and a master’s degree in Mathematics Curriculum and Instruction. She will begin an Ed.D. program Fall 2026 with University of South Carolina. Woods is a recipient of the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) and was named a U.S. Presidential Scholar’s Most Influential Teacher, recognizing her lasting impact on student learning and academic growth.