# THE NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE

Division of Behavioral and Social Sciences and Education
Board on Science Education (BOSE)

## Engaging Educators in Cultivating Interest and Competencies in Computing
## Bios

**Moderator:** Joanna Goode, Sommerville Knight Professor, University of Oregon

**Panelists:**

- Aileen Owens, ThroughlinesEdu, Educational Consultant
- Jean Ryoo, University of California, Los Angeles
- Aman Yadav, Michigan State University
- Eboni Zook, Technology/Computer Science Teacher, Baltimore Leadership School for Young Women

**JOANNA GOODE** is the Sommerville Knight Professor in the College of Education at the University of Oregon. Her research examines issues of access and equity for underrepresented students of color and females in computer science education. For the past several years, she has studied the institutional and psychological reasons preventing many underrepresented young people from entering the computer science pipeline in high school. As a former urban high school mathematics and computer science teacher, Goode's research considers the relationship between teacher development and opportunities to learn for students. She also serves as the director of a program aimed at preparing and supporting the efforts of LAUSD computer science educators in diversifying the high school computing pipeline. Goode earned her Ph.D. in the education division of urban schooling at the University of California, Los Angeles.

**AILEEN OWENS** has a twenty-year history building and leading innovative teaching and learning experiences in K–12 and higher education. As director of technology and innovation at South Fayette Township School District Aileen built one of the nation's first vertically aligned computational thinking initiatives K–12. Through a PAsmart Advancing grant Aileen supported seven regional high-needs school districts in building a CS/STEAM K–8 pathway and currently is managing a three-year NSF grant designed to build a similar pathway for rural school districts in Appalachia; a grant that lies at the intersection of education and an economic redevelopment plan. Over the last five years, funded by local foundations, she has led professional development programs in CS/STEAM for teachers and administrators.

**JEAN RYOO** is the Director of Research of the Computer Science Equity Project at UCLA Center X. She is currently leading the "REAL-CS" Project's effort to understand, from youth perspectives, what students are learning in introductory CS high school courses, and how their experiences with computing impact their engagement, agency, and identity in CS. This research-practice partnership with school districts and classroom teachers has the shared goal of surfacing historically underrepresented students' voices in the growing "CS for All" movement. Prior to

this, she worked with the Tinkering Studio of the San Francisco Exploratorium–a museum of science, art, and human perception–to direct research-practice partnerships focused on equity issues in afterschool STEM making programs (see, for example, the California Tinkering Afterschool Network). Jean builds on her varied experiences as a museum docent, afterschool educator, and public school teacher to inform her focus on using research as a tool to name and counter the inequities that our youth and teachers face in different educational contexts. Jean received her PhD from UCLA, MEdT from University of Hawai'i at Manoa, and her BA from Harvard University.

**AMAN YADAV** is a Professor of Educational Psychology and Educational Technology at Michigan State University with extensive experience in research, evaluation, and teacher professional development. His areas of expertise include computer science education, problem-based learning, and online learning. His research and teaching focus on improving student experiences and outcomes in computer science and engineering at the K-16 level. His work has been published in a number of leading journals, including ACM Transactions on Computing Education, Journal of Research in Science Teaching, Journal of Engineering Education, and Communications of the ACM.

**EBONI ZOOK** teaches Computer Science and Technology and facilitates a Girls Who Code Club at the Baltimore Leadership School for Young Women (BLSYW), an all-girls public charter school in Baltimore City, Maryland. Eboni is passionate about increasing STEM learning opportunities for young women of color and students from under-resourced communities. Eboni is entering her ninth year as an educator and recently partnered with the Maryland Center for Computing Education (MCCE) to create a unit of Early Childhood Computer Science curriculum integrated with Next Generation Science Standards. As a Code.org CS Fundamentals Facilitator, Eboni has trained hundreds of elementary school teachers in CS curriculum. Eboni has a B.A. in English from the University of Maryland, Baltimore County, and an M.A. in Curriculum and Instruction from Loyola University Maryland. She is working on graduate degrees in Special Education and Technology Education.