

**Division of Behavioral and Social Sciences and Education
Board on Science Education**

Roundtable on Systemic Change in Undergraduate STEM Education

May 23, 2022

**Online and at the National Academy of Sciences Building
2101 Constitution Avenue NW
Washington D.C.**

Meeting Goals:

- *Connect stakeholders in education, government agencies, and professional societies to explore how the changing landscape of the workplace and the workforce has implications for reform of undergraduate STEM education.*

**Monday, May 23rd
NAS 120**

PUBLIC SESSIONS

10:00 am EDT **Welcome and Overview of Roundtable Meeting**
Mark Mitsui and Ann Austin, Co-Chairs

10:15 **Future Needs for the Workforce and the Implications for Educating Undergraduates**
What learning opportunities and strategies are appropriate to prepare students for the future workplace? How can we best use apprenticeships, internships, coops, and career and technical education?

Panelists:

- o **Maricla Pirozzi Quartey**, Associate Co-op Coordinator and Director, Multidisciplinary Masters Co-op Programs, Northeastern University
- o **Jayshree Seth**, Corporate Scientist and Chief Science Advocate at 3M
- o **William Tyson**, Associate Professor, University of South Florida

Roundtable Member Patty Lopez, Moderator, Intel Encore Computer Science Fellow in Residence at New Mexico State University

11:05 **Workforce Policy**

What kinds of initiatives would allow state or federal agencies to partner with institutions of higher education in order to prepare students to enter the changing workforce?

Panelists:

- o **Kenny Gibbs**, Chief, Undergraduate and Predoctoral Cross-Disciplinary Training Branch at National Institute of General Medical Sciences (NIGMS)
- o **Amanda Winters**, Program Director for Post-Secondary Education at the National Governors Association, Center for Best Practices
- o **Dale Winkler**, Vice President of School Improvement at the Southern Regional Education Board
- o **Patsy Richards**, Director of Long-Term CareWorks at Respect Integrity Service Equity (RISE) Partnership

Roundtable Co-Chair Mark Mitsui, Moderator, President of Portland Community College

12:00 **Lunch in discussion groups**

1:00 **Partnerships Between Higher Education, Industry, Government, and Communities**

What are lessons learned from collaborations of higher ed with others in the community that have tried to improve preparation of the future workforce?

Panelists:

- o **Kathleen Plinske**, President, Valencia Community College
- o **Clayton Yates**, Professor, Department of Biology and Center for Cancer Research Director of Center for Biomedical Research at Tuskegee University
- o **Celeste Carter**, Lead Program Director, Advanced Technological Education Program, Division of Undergraduate Education at the National Science Foundation

Roundtable Member Susan Singer, Moderator, Professor of Biology and Vice President for Academic Affairs and Provost at Rollins College

2:00 **Efforts by Disciplinary Societies to Support a Diverse Workforce**

What are some lessons learned from efforts by disciplinary societies to prepare undergraduates for the future workforce?

Panelists:

Pamela Padilla, President of SACNAS and Professor of Biology, University of North Texas

Terri Chambers, Senior Director, Education Division, American Chemical Society

Irene Hulede, Director of Education, American Society for Microbiology

Kathryne Woodle, Senior Program Manager, American Physical Society

Roundtable Member Norman Fortenberry, Moderator, Executive Director, American Society for Engineering Education

2:50 Break

3:00 Commentary and Wrap-Up by Roundtable Members

Panelists:

Mark Lee, Associate Professor Biology, Spelman College

Howard Gobstein, Senior Vice President for STEM Education and Research Policy, Association of Public and Land-grant Universities (CONFIRMED virtual)

Harriet Nembhard, Dean of the University of Iowa College of Engineering and The Roy J. Carver Professor of Industrial and Systems Engineering

Roundtable Co-Chair Ann Austin, Moderator, Distinguished Professor and Interim Dean, Michigan State University College of Education

3:45 Adjourn public meeting