



Solving the Education Equation: A New Model for Improving Diverse Student Outcomes through Academic Equity

Summary Document



Multi-stakeholder Coalition for Building a Diverse U.S. STEM Workforce (Coalition)

Never has the need for science, technology, engineering, and mathematics (STEM) workers been more critical to expanding our economy, ensuring our environmental stability, and maintaining our national defense capabilities. Yet, changing U.S. demographics highlight a growing concern about the nation's ability to meet the workforce demands for a literate and skilled STEM workforce.

Failure to increase the numbers of STEM workers may have serious consequences, not only for individuals who remain in low-wage jobs, but also for U.S. businesses that are challenged by workforce shortages, for federal, state, and local agencies that face significant losses of tax revenues, and for all U.S. citizens who are concerned by the growing threats of terrorism and environmental extremes.

To address the need for more STEM workers, the Coalition sets forth the following two goals as priorities for the nation:

Goal 1: Develop fully the achievement, interests, access, and resources needed for underrepresented female and minority students to improve STEM literacy and close academic gaps for all U.S. students.

Goal 2: Expand the number of female and underrepresented minorities who pursue advanced certificates, degrees, and careers in STEM fields to ensure full participation of all U.S. students in those fields.

To achieve these goals, the nation must recognize and address two entrenched gaps in education, both of which are recognized in research and are measurable:

1. Academic achievement gaps (also referred to as equity gaps in recruitment, retention, performance, and completion) between White/Asian students and students of color that are evident in most rigorous STEM courses and programs.
2. An interest gap in STEM courses and careers, particularly among females, people of color, and people with disabilities, because of entrenched cultural attitudes and beliefs about innate abilities.

To address these two distinct challenges, the United States must address the culturally based explicit and implicit biases that exist in education, particularly in STEM (including career and technical education) courses and programs) to create inclusive, culturally responsive, equitable learning environments for every student.

HIGH-QUALITY EDUCATION = TEACHER KNOWLEDGE CONTENT AND PEDAGOGICAL SKILLS + ACCESSIBLE RESOURCES + MEANINGFUL STUDENT ASSESSMENTS + **EQUITABLE LEARNING ENVIRONMENTS**

The Coalition provides six recommendations needed to create systemic changes to improve STEM education student outcomes. Government, higher education, K-12 education, businesses, nonprofits, civil rights groups, and workforce development agencies collaborated to build these recommendations to finally address what is needed to achieve equitable learning environments for every student.

The Coalition led by the National Alliance for Partnerships in Equity and the Johns Hopkins School of Education is responsible for the coordination and release of this report. Please go to <http://www.napequity.org/solving-education-equation/> for more information and a copy of the report.