National Commitment Urged to Increase STEM Workers

Gap, PA—A coalition of educators, businesses, nonprofits and civil rights groups calls for a national commitment to increasing the number of females and minorities in science, technology, engineering and mathematics (STEM) careers in a report released today by the Johns Hopkins School of Education and National Alliance for Partnerships in Equity.

The Multi-stakeholder Coalition for Building a Diverse U.S. STEM Workforce in the report, “Solving the Education Equation,” said an emphasis on “equitable learning environments” will insure that teaching and learning are relevant to all students and connect meaningfully to STEM literacy and competency.

“The issue of educational equity must be at the center of the practice and policy discussions about closing the achievement gap for students and the skills gap for employers, especially in STEM careers,” said Mimi Lufkin, CEO of the National Alliance for Partnerships in Equity. “As the demographics of this nation continue to shift, we have to engage everyone in the solutions to meet the critical demands of our economy, our environment and our national defense. This starts with an educational system where achievement is within every student’s grasp.”

The coalition estimates that the benefits of closing the skills gap to the U.S. economy would be $551 billion by 2050. A survey of businesses by the Business Roundtable and Change the Equation revealed that 60 percent of job openings require basic knowledge in science, technology, engineering and mathematics, and 42 percent require advanced knowledge. Many of those same companies said that 38 percent of their applicants lack basic knowledge in those areas.

“Students do not enter the classroom on an equal footing,” said Carolyn Parker, an assistant professor of education at Johns Hopkins. “There is growing awareness of the importance of what the students bring to the classroom in terms of social, emotional, and cultural contexts. To build a strong STEM workforce, we need to create inclusive, culturally responsive equitable learning environments for all students.”

The report cites “entrenched” obstacles to improving STEM literacy and expanding the workforce:

- the academic achievement gap between White/Asian students and students of color as evident in most rigorous STEM courses and programs, and
- a lack of interest 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.
Two professional development models are offered for creating more equitable learning environments. The first, Model One, developed by National Alliance for Partnerships in Equity and its Education Foundation, focuses on school and community culture. Model Two, the PACE Framework, addresses the importance of providing equity training for principals and other school and district-based personnel. “These models demonstrate how closing equity gaps can improve student performance,” said Claudia Morrell, NAPE Senior Consultant. “When we empower educators with the best culture-based knowledge, strategies, and tools researchers and practitioners can provide, they can finally create the welcoming, inclusive learning environments where every child can learn.”

The recommendations made by the Coalition include developing national standards for achieving equity in education, providing more training for teachers to prepare them to work with an increasingly diverse student population, and establishing accountability systems to measure progress toward closing the achievement and interest gaps. The coalition also recommends shifting federal funding to conduct more research to study the impact of creating equitable learning environments to improve student outcomes.

Learn more at www.napequity.org/solving-education-equation.

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The National Alliance for Partnerships in Equity (NAPE) is a consortium of state and local education and workforce development agencies, corporations, and national organizations committed to building educators’ capacity to implement effective solutions for increasing student access, educational equity, and workforce diversity. The NAPE Education Foundation, Inc. (the Foundation) was established in 2002 in response to requests for assistance with program improvement efforts by education and workforce agencies across the nation. The Foundation shares NAPE’s commitment to the advancement of access, equity, and diversity in classrooms and workplaces.

The Johns Hopkins School of Education was established in 2007 and has quickly taken a place as a national leader in education reform through research and teaching. Ranked first nationally among graduate schools of education by U.S. News & World Report, the school is engaged in a variety of research and development activities that are making lasting improvements in student achievement—from early childhood to the adult learner.