

The NSF Community College Presidents' Initiative in STEM Education is working to improve science and technology education among underrepresented groups – and it needs boards' support.

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ONE OF A TRUSTEE'S MOST IMPORTANT RESPONSIBILITIES is to act as a bridge between the college and its community. Through their connections in the community, trustees gather valuable information about current community and local business needs that can lead to program improvement or even the development of new college programs. On a larger scale, trustees should become informed about needs of regional and even national interest that the college could address.

Today, the attention of trustees is needed to respond to an emerging crisis. Our nation is facing a significant need to develop adequate talent in science, technology, engineering, and mathematics (STEM) fields to ensure economic strength, security, global competitiveness, and environmental health, according to the National Academies of Sciences, Engineering, and Medicine. There are currently more than 16 million skilled technical jobs requiring an associate degree or similar level qualification, and the number of jobs requiring substantial STEM expertise has grown nearly 34 percent over the past decade, according to the National Science Board.

In addition to projected STEM labor shortages, there are significant racial and gender disparities in the technical workforce. African Americans make up 11 percent of the U.S.

workforce, but only 7 percent of all STEM workers. Hispanics are 17 percent of the workforce but only 7 percent of all STEM workers. Women are underrepresented in several STEM occupations, particularly in computer jobs and engineering. The racial and gender inequalities have significant income implications. Even among workers with similar education, STEM workers earn significantly more, according to the Pew Research Center. At a time when we need to address STEM labor shortages, we cannot afford to leave segments of our population behind.

The National Science Foundation (NSF) is supporting a strategy to address these issues through the newly funded Community College Presidents' Initiative in STEM Education (CCPI-STEM). Community colleges, serving the most diverse student body in higher education, are a fertile ground for effective diversification of the STEM workforce. Fifty-one percent of community college students taking college credit classes are students of color, according to the American Association of Community Colleges.

NSF's Advanced Technology Education (ATE) program has a track record of supporting community colleges, providing \$1.11 billion in support over 25 years. While community colleges'

attention to STEM education has increased over the years, effective use of available government support is still inadequate to address the workforce shortage. Only 22 percent of eligible public community colleges are taking advantage of the NSF ATE funding opportunity, according to the NSF, a percentage we hope to increase significantly.

CCPI-STEM intends to galvanize and support community college leaders (presidents, trustees, vice presidents, deans, and lead faculty) to prepare successful ATE proposals and to implement and sustain ATE projects. ACCT is represented on the National Advisory Board by President & CEO Jee Hang Lee.

CCPI-STEM will be working through Regional Networks (RNs) of community colleges in six to eight geographic regions. The RN partners will also include representatives of local and regional business and industry and members of the professional associations.

An important outcome of CCPI-STEM will be the creation of webinars and digital and print resources such as a *Funding Guide*, *Infrastructure Guide*, *Models that Work*, *Economic Impact Guide*, and *Exemplars*. A CCPI-STEM Economic Resource Guide will showcase successful community college-business and industry partnerships and will provide recommendations to strengthen these programs. Business and industry representatives will be encouraged to co-present and co-author publications that advance STEM education programs.

An annual CCPI-STEM Summit will provide opportunities for showcasing academe-business programs in different regions with the goal of strengthening these relationships. Examples of collaborations that enable the participation of small and rural colleges will be included. Representatives of business and industry will participate in the annual Summit to strengthen the synergistic relationships.

CCPI-STEM will develop curricular modules focused on STEM education and funding opportunities intended to be used in community college leadership doctoral programs and leadership institutes. These materials are planned to address the role of community college leadership in ATE proposal development and in the implementation and evaluation of funded programs. They will provide examples of successful colleges and how they have been able to leverage grant funds to expand and improve their STEM curricula; improve student enrollment and completion in STEM disciplines; address issues of diversity, equity, and inclusion; and strengthen partnerships with local STEM businesses, public schools, and transfer universities. The modules will also provide links to valuable resources.

CCPI-STEM also intends to establish the CCPI-STEM Scholars program for graduate students who are selected and supported in research related to STEM and workforce education in community colleges. The CCPI-STEM Scholars will be expected to present at different events, publish their research findings, share with the broader community, and pursue teaching or serving in a leadership capacity at a community college.

The CCPI-STEM website (<https://ccpi-stem.org/>) provides important current information about the project. It also includes a calendar of events and meetings, shows the regional networks, and lists current ATE awards by region. Interested individuals can

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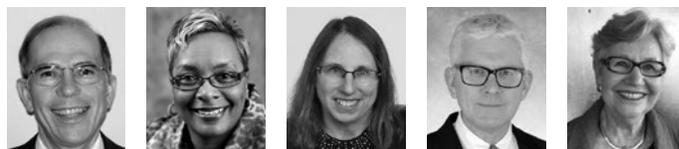
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follow the progress of the initiative on the website. Questions about the initiative or suggestions can be addressed to the Principal Investigators, members of the National Advisory Board, or Regional Network Chairs through the project website.



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