



Association for  
Computing Machinery

*Advancing Computing as a Science & Profession*

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**ACM URGES STATES TO EXPAND COMPUTER SCIENCE EDUCATION TO PREPARE K-12 STUDENTS FOR  
21ST CENTURY WORKFORCE NEEDS**

***New Report Presents Recommendations and Initiatives to Address CS Education Challenges***

**NEW YORK, NY**— March 5, 2014 – Citing the rapid growth of computing jobs in virtually every industry sector in the United States, [ACM](#) today issued a report urging states to provide more opportunities for students to gain the skills and knowledge needed to compete for these high-wage positions. The report “[Rebooting the Pathway to Success: Preparing Students for Computing Workforce Needs in the United States](#)” calls on education and business leaders and public policy officials in every state to take immediate action aimed at filling the pipeline of qualified students pursuing computing and related degrees, and to prepare them for the 21<sup>st</sup> century workforce. The report provides recommendations to help these leaders join together to create a comprehensive plan that addresses K-12 computer science education and that aligns state policy, programs, and resources to implement these efforts.

“By 2020, one of every two jobs in science, technology, engineering, and mathematics (STEM) will be in computing,” said Bobby Schnabel, chair of ACM’s Education Policy Committee. “This concentration of computing positions in STEM makes it imperative for K-12 students in academic and career technical education programs to gain more opportunities to learn computer science.”

ACM CEO and Executive Director John White said that despite national calls for improved STEM education, computer science is largely omitted from these reforms. “A key factor in the limited access to K-12 computer science programs is the notion that computer science is not considered part of the ‘core’ subjects that students are expected to learn. We need to expose all students to computer science so they learn the vital skills that are increasingly relevant to a broad range of well-paying occupations,” he said.

To remedy this dilemma, the report recommends that states or localities adopt a clear definition of rigorous computer science that is grounded in the [K-12 Computer Science Standards](#) developed by the Computer Science Teachers Association (CSTA).

The ACM report calls on colleges and universities to play a role in expanding opportunities for computer science education by recognizing rigorous computer science courses in their admissions requirements. Higher education institutions can also reduce barriers to degree completion by adopting system-wide agreements that allow students to transfer course credits to fulfill their computing degrees efficiently.

Examples of current computing education initiatives across the country are included in the report, providing potential models and inspiration for policymakers to adapt as they develop their own computer science education and computing workforce development plans. The report includes an overview of each initiative's approach for increasing access to computer science in K-12 as well as plans to address diversity issues.

The report presents the results of a study conducted by the [ACM Education Policy Committee](#). The study, based on data gathered from all 50 states and the District of Columbia, was designed to assess the national computing workforce landscape, and to determine how well states are preparing K-12 students with the computing skills necessary for their future careers.

### **About ACM**

ACM, the Association for Computing Machinery [www.acm.org](http://www.acm.org), is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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