



ANNUAL REPORT
of the ACM Education Policy Committee
For the Period: July 1, 2015 - June 30, 2016
Submitted by Jeffrey Forbes, Chair

1. BASIC INFORMATION

1.1 COMMITTEE MEMBERS

Jeffrey Forbes (Chair)
Joanna Goode
Susanne Hambruch
Elizabeth Hawthorne
J Strother Moore
Mark Nelson
Kelly Powers
Susan Rodger
Deborah Seehorn
Chris Stephenson
Mark Stehlik, Senior Advisor
Eugene H. Spafford (ACM U.S. Public Policy Council Chair), ex officio
Fabrizio Gagliardi (ACM Europe Policy Committee Chair), ex officio
Robert B. Schnabel (ACM Executive Director and CEO), ex officio
Renee Dopplick (ACM Director of Public Policy), ex officio

Two-year terms of current members expire June 30, 2016.

1.2 PURPOSE

The ACM Education Policy Committee (EPC) engages educators, industry, policymakers, and the public on public policy issues in computer science and computing-related education. It focuses on steps to ensure that high-quality computer science education is identified as a critical component of education policy. It reviews, researches, and gathers data and information on issues that impact computer science and computing-related education in primary, secondary, and higher education systems. It determines if current education policies and the education systems are adequately serving the



computing field and recommends improvements. It comments on proposals before governmental bodies that impact computer science education and the computing field. It educates policymakers and the public on the foundational role and importance of computer science education, its importance as a core discipline within science, technology, engineering, and mathematics (STEM) education, and its importance to the labor market and the economy. It provides expertise on key computer science education policy issues to education, industry, and policy leaders.

1.3 COMMITTEE MEETINGS

The ACM Education Policy Committee operates mainly through listserv discussions among the members.

The ACM Education Policy Committee held a meeting on June 24, 2016, in Washington, D.C. to discuss progress on current projects, future possible projects, and priorities for the year. Leadership from the ACM Education Board and ACM Europe participated in planning discussions for an ACM-sponsored global summit on education policy. The White House Senior Policy Advisor for Tech Inclusion provided an update on the Administration's efforts to advance computer science education, such as the Computer Science for All initiative aimed at expanding learning opportunities for students from kindergarten to high school.

2. PROJECT SUMMARY

The ACM Education Policy Committee used several strategies to achieve its mission and priorities this past year, including collaboration with other education policy stakeholders and outreach to the broader community. These actions raised the awareness of the importance of computer science and computing education.

STEM Education Coalition

ACM, through the Education Policy Committee, participated in the leadership Council of the STEM Education Coalition, which sets the policy agenda and overall objectives. The Coalition has 600+ affiliate members worldwide. The Coalition's Policy Forum raises awareness of the need for increased rigorous education and learning opportunities in computing and other STEM fields. This past year, the Coalition raised awareness through policy statements and reports, an e-newsletter, public events, roundtables, meetings with policy leaders, and media interviews. ACM participated in Coalition meetings with White



House officials. ACM participated in the Policy Forum's working group on integrating of informal education opportunities in career pathways and contributed to its report.

Congressional STEM Education Caucus Advisory Committee

This private-sector organization works with the Congressional STEM Education Caucus to inform policymakers about STEM education policy issues. It is comprised of public interest groups, trade associations, nonprofits, and corporations from a broad cross-section of the STEM community. It hosts regular debates for Congressional staff and the public. The Caucus also published and circulated a newsletter to Congressional Members, the Advisory Committee members, and additional relevant stakeholders. The ACM Education Policy Committee served as a resource for speaker and topic recommendations, as well as information about computer science and computing education policy.

Congressional STEM Education Caucus Briefing on the STEM Pipeline

The Education Policy Committee co-organized and participated in a briefing on the "STEM Education Pipeline" hosted by the House STEM Education Caucus and attended by roughly 100 congressional staff. The briefing included speakers from ACM, the Computing Research Association, and the American Society of Mechanical Engineers. The Council on Undergraduate Research moderated the discussion. The briefing explored how colleges and universities are bridging opportunity gaps and how government funding has helped to access to postsecondary education and research opportunities, expand diversity and inclusiveness, and leverage innovative initiatives and public-private collaborations to advance opportunities for students, faculty, and researchers.

Comments to the National Institute of Standards and Technology on U.S. Participation in International Cybersecurity Standardization

ACM Education Policy Committee, the ACM Education Board, the ACM Education Council, and the ACM Task Force on Cybersecurity Education contributed to comments submitted by the ACM U.S. Public Policy Council to the National Institute of Standards and Technology (NIST) and the National Security Council's Cyber Interagency Policy Committee. The comments resulted in the addition of "computing" as a major academic area of technical, undergraduate, and graduate educational programs in the final interagency report on strategic U.S. participation in international cybersecurity standards. The final report also included several of our suggestions and recommendations, such as



including mobile technologies and explicitly recognizing professional societies as among the key stakeholders.

Computer Science Education Week 2015

ACM helped promote Computer Science Education Week and the Hour of Code to its members and to the public. ACM's engagement in K-12 computer science education led to the original U.S. House of Representatives Resolution in 2009, H. Res. 558, endorsing a national Computer Science Education Week.

K-12 Computer Science Framework

Committee members serves as advisors to a proposed high-level framework of computer science concepts and practices for K-12 students. The effort, led by ACM, CSTA, Code.org, CIC, and NMSI, has involved more than 100 advisors within the computing community, several states and large school districts, technology companies, and other organizations. The goal of the process is to develop conceptual guidelines for states and districts creating K-12 pathways in computer science. The framework is scheduled for release in September 2016.

Code.org Advisory Group

ACM, through the Education Policy Committee, participated in the computing community advisory group of Code.org. The vision of Code.org is to expand access to computer science courses, improve the quality of computer science education, and train teachers to deliver engaging and quality computer science courses.

Computer Science for All Steering Committee

ACM participated in the steering committee for a new proposed effort to enable expanded access to computer science and support for computer science teachers.

3. PROPOSED PROJECTS

The ACM Education Policy Committee will continue its efforts on current progress and evaluate the merits of possible engagement in additional policy activities:

- **Global Workshop on Pre-University Education Policy** Continue the planning to convene a group of educators in 2017 to discuss education policy approaches in selected countries.



- **Best Practices for Diversity and Inclusiveness in Computing Education** Publish best practices and guidelines for enabling diversity and inclusiveness in formal & informal educational opportunities.
- **Community Colleges in the United States** Review, research, and gather data and information on how current education systems serve students transitioning from 2-year community colleges to computing-related degree programs at 4-year colleges and universities.
- **Policy Research Project** Conduct research on the connection between computing education and jobs.
- **Outreach** Continue efforts to keep policy leaders and the ACM community informed through publications and talks.

3.1 DIVERSITY

The ACM Education Policy Committee is composed of computer scientists, educators, practitioners, researchers, and managers from industry, nonprofit organizations, and academia. The Committee engages with a broad range of stakeholders within the STEM community, the broader education community, and the policy sector. The Committee is dedicated to furthering policy approaches to promote inclusiveness at all levels of the educational pipeline and within the computing workforce.

APPENDIX

Address list of committee members responsible for projects.

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