

APS COMMITTEE ANNUAL REPORT  
2021

**Committee**

Education

**Committee Charge**

The membership of the Committee on Education consists of the Chair, Past-Chair and Chair-Elect from the Forum on Education and nine (9) persons selected by the Committee on Committees and appointed by the President-Elect to staggered three-year terms. The President-Elect appoints the Chair from among the members. The Committee is responsible for activities in the area of physics education designated to it by the Council. It reports periodically to the President and the Council on physics education. It may suggest and supervise studies and programs to improve the cooperation between the educational community and other parts of the physics community.

**2021 Committee Members**

Chair: **Joshua (Josh) Grossman**  
St. Mary's College of Maryland

Member: **Kathryn (Kat) Svinarich**  
Kettering University

Member: **Martha-Elizabeth (Marty) Baylor**  
Carleton College

Member: **Jamie D White**  
Juniata College

Member: **Daniel (Dan) Harris**  
Brown University

Member: **Stefan Zollner**  
New Mexico State University

Member: **Rajeswari (Raj) Kolagani**  
Towson University

FED Chair-Elect to COE: **Eric Brew**  
Drexel University

Member: **Maajida Murdock**  
Morgan State University

FED Chair to COE: **Catherine Crouch**  
Swarthmore College

Member: **Anderson Sunda-Meya**  
Xavier University of Louisiana

FED Past Chair to COE: **Gerald (Jerry) Feldman**  
George Washington University

## SUMMARY OF MEETINGS AND ACTIVITIES IN 2021

Due to COVID, the first three committee meetings of the year were online: January 30, March 27, and July 13. The October 2 meeting was held in person. Subcommittees met and conducted their work virtually between meetings. The Committee on Education's largest set of activities revolved around the Effective Practices for Physics Programs (EP3) initiative. Members also worked with the Educational Policy Committee (EPC). Other tasks were completed or initiated as described below.

**Effective Practices for Physics Programs:** We continued to spend a great deal of time trying to understand the inner workings of Effective Practices for Physics Programs (EP3) in order to be ready to put in place a system to continue the operation of EP3 once its Task Force concludes its term. With the initial public roll out of the EP3 Guide and the EP3 Toolkit for Departments Under Threat in January 2021, COE provided feedback on format and content. After reviewing one draft EP3 Guide section in 2020, a sub-group of COE has spent the last year serving as the synthesis committee for another section, drafting Description and Benefits statements, suggesting contributors and reviewers, and synthesizing contributions into a section draft. This sub-group provided feedback to the EP3 Task Force to improve the process. The sub-group and COE as a whole are advising the EP3 Leadership Team on producing a set of guidelines for continuing EP3 operations in the future. These will likely include an EP3 Board that reports to COE. COE and the EP3 Task Force aim early in 2022 to have the guidelines ready to be formally endorsed by both bodies, so that they can be sent to the APS Board for review and potential approval.

**Education Policy Committee:** EPC served as a major conduit of information from Governmental Affairs (GA) to COE and back. The committee supported APS' response to the new Biden Administration's federal policies that had consequences to higher education, particularly to international undergraduate and graduate students. It also provided feedback on educational issues in spending bills, including the American Rescue Plan Act, the Infrastructure Investment and Jobs Act, NSF and DOE funding bills, the proposed Build Back Better Act, and the proposed budget. The committee spent substantial time considering ways to increase the production of high school physics teachers, as this is a linchpin issue for addressing other issues in physics education. EPC and GA decided to focus on two aspects of NSF's Noyce Teacher Scholarship Program for lobbying: (1) appropriations to match the increase in funds authorized for Noyce; (2) greater flexibility in Noyce awards, accompanied by increased accountability (reporting on the program impact). Further accomplishments will be discussed in the EPC annual report.

The EPC met roughly monthly throughout the year. 2021 EPC membership is as follows:  
COE members: COE Chair (Grossman), Bryan Pyper - Brigham Young University - Idaho, Noah Finkelstein - University of Colorado, Raj Kolagani - Towson University, Anderson Sunda-Meya - Xavier University of Louisiana,  
GPER member: Andrew Heckler -- Ohio State University  
FEd member: Scott Franklin - Rochester Institute of Technology (EPC chair), Michael Marder - University of Texas

## Other 2021 COE Activities

Additional work of the committee includes these actions:

- Annual review of COE priorities
- Ensured alignment of COE work with COE priorities
- Began working with the new APS Head of Education, Michael Wittmann
- Supported activities related to awards and grants
  - Selected recipients of Award for Improving Undergraduate Physics Education.
  - Created guidelines for composition of the Awards Sub-Committee to ensure continuity and diversity.
  - Charged the Awards Sub-Committee with drafting revisions to the evaluation criteria and the call for nominations for the Award for Improving Undergraduate Physics Education. The revised materials will explicitly emphasize improvements resulting from evidence-based effective practices.
  - Reviewed & selected recipients of APS Prize for a Faculty Member for Research in an Undergraduate Institution.
  - Established a process to formally recognize top producers of physics majors (by institution type, by key demographics).
  - Supported development of Innovation Award pre-proposals which listed COE as a related unit. Subsequently reviewed and scored relevant IF proposals.
- Worked with COM and CSWP on a proposal for an Equity, Diversity, and Inclusion (EDI) Fellowship Program to develop physicist facilitators who are EDI trainers. A team of PIs (including members of COE, COM, and CSWP) completed a proposal to the APS Innovation Fund, and it was selected for funding. COE will serve as a pilot group for a training session in 2023.
- Supported existing IF-funded projects on quantum education at PUIs and the effect of COVID-19 on physics graduate education
- Provided feedback on the draft of the APS Statement on Graduate Admissions
- Began work on a Physics Graduate Education Conference. A proposal will be submitted to NSF in 2022 with the plan for APS to host the conference in spring 2023.
- Continued work on a proposal for APS to create a Leadership Development program to support department chairs and other leadership opportunities for physicists inside and outside of APS. APS is exploring joining leadership development activities offered by ACS, albeit with more of an emphasis on early career development.
- Discussed the relationship between COE and FEd, and supported FEd in its strategic planning
- Worked to improve communication with other APS bodies (committees and units) with priorities that overlap with COE