

**Report of the
American Physical Society Committee on Education
November 2, 2004**

The Committee on Education met on October 16, 2004. The committee welcomed the new APS Director of Education and Outreach, Ted Hodapp. The COE unanimously recommended Edward (Joe) Redish to serve as chair of the committee in 2005.

Fund-raising for the new Award for Excellence in Physics Education is still in the “quiet phase.” A total of \$20,000 has been raised so far towards a target goal of \$100,000. Wolfgang Christian reported that letters asking for contributions will go out shortly to the Forum on Education membership. A “Leadership” gift is \$1000, which can be paid over 3 years. The FED is matching gifts one to one up to \$30,000.

David Campbell of Boston University, chair of the Joint APS/AAPT Task Force on Graduate Studies, gave an update on the activities of the Task Force. The Task Force is currently conducting an on-line survey of PhD granting institutions. The Task Force is hoping for 80% return by mid-November. Additionally, an informal email survey was conducted by the Forum on Graduate Student Affairs (FGSA) to provide background information to the Task Force. Information from this informal survey will be incorporated into the task force data as anecdotal information. The Task Force expects to have a final report for the APS Council meeting in the spring of 2005.

Redish reported that the Physics Education Research community within AAPT has sought a membership topical group to improve lobbying efforts. The group was recently approved by the AAPT Council and will be called PERLOC (Physics Education Research Leadership and Organizing Council). COE is considering ways to interact with this committee.

Cunningham reported that both technical and non-technical papers can be submitted to different sessions at APS meetings; this would be good opportunity for COE to make a presence at the meetings. Stewart agreed to organize two focus sessions on high school teaching at the APS April 2005 meeting in Tampa. Stewart will check with APS meetings to determine availability of space.

The Committee discussed ways to increase dialog between AAPT and APS committees that focus on physics education. After some discussion, the Committee decided that they would consider the agenda items for each meeting and invite the appropriate chair of an AAPT committee as needed.

The Committee reviewed the updated version of the Guidelines for Self-Study and External Evaluation of Undergraduate Physics Programs. The guidelines have already been approved by AAPT. Members of COE agreed that this is overall an excellent document. Suggestions for minor changes will be sent to Cunningham who will then work with Ruth Howes (Marquette University) to finalize the document. Cunningham will send the revised document to COE for their final approval before taking it to the APS Council.

A subcommittee of Rogers, Mallik, and Cunningham held a conference call this summer and recommended that APS consider conducting a pilot project to determine the status of teacher licensure in a few states. The COE approved a pilot survey to determine the status of teacher licensure across the US and utilize the help of the Forum on Education and AAPT to identify people who would be interested in supporting this effort and can alert the local physics community. The FED has authorized the use of \$5000 to help support this project.

The following summarizes long-range planning conducted at the October meeting.

1. SHILA GARG and BETH CUNNINGHAM will outline the need as well as the procedures for developing a document of undergraduate physics curriculum best practices. This project is based on the work of National Task Force for Undergraduate Physics, the SPIN-UP project, and the Guidelines for Review of Physics Departments developed by the Task Force. APS receives regular requests for “what constitutes a quality undergraduate physics program?” The Guidelines are very close to that, but do not address the “quality” of an introductory course of study. A second document could perhaps address the definition of a high quality undergraduate physics education. Garg and Cunningham will report back to the committee in mid-December with a draft of their proposal.

2. Members of COE are increasingly concerned that Congress is not funding physics and science education research projects at an appropriate level. COE could take a leadership role in meeting with congressional members and committees. It was suggested that relevant faculty could be trained in how to interact with Congress; this project could be helpful in involving a large number of physicists. REDISH and HODAPP will visit the APS Washington, DC office to meet with Michael Lubell and Francis Slakey to discuss steps in developing lobbying efforts. LOPEZ will also assist with the lobbying effort.

3. Members of COE considered ways to improve the visibility and prestige of high school teachers, and to improve their connections with the profession. Hodapp suggested asking physics departments consider ways to encourage teaching as a profession and noted that PhysTEC is thinking of a national forum on this issue. Information about different pre-service teachers programs can also be added into ComPADRE. ROGERS will take the lead in gathering material about resources and people who are available to assist high school and pre-service teachers. The framework for a white paper could be developed endorsing high school teaching and addressing the issue of improving high school physics teaching and establishing liaisons with local universities. METCALF will assist Rogers.