

# **Annual Report for 2001**

## **Report to the Executive Board - Committee on Education**

**June 2001**

The Committee on Education has two very productive meetings. Several issues were considered, Statements written, actions advocated concerns voiced.

The Committee was very happy to hear that the change to the By-Laws (to include the Forum on Education (FEEd) Chair, Chair-elect, and Past-Chair as members of the COE), has been approved. COE's role is to keep leadership informed and advised and to respond to requests from other units and the outside community. FEEd membership on the committee expands its ability to act.

### **Concerns**

1. The Committee discussed with regret the fact that the NSF is ending the Research Experience for Teachers (RET) program which enabled teachers to work in national labs over the summer. Helen Quinn reported that the Dept. of Energy has begun a small teacher program; some collaboration with NSF is expected. The overall shortage of teachers is of considerable concern to the committee and should be put on the agenda in the future.

2. Increased emphasis on standardized testing in math and reading at the elementary level is resulting in less time spent teaching science, as time is sacrificed to preparation for testing. Several members felt it important that APS address this issue in some way.

### 3. Advanced Placement Exam

An invitation was extended to the College Board to send a representative to discuss the Advanced Placement Examination in Physics, however no representative was able to attend. There is a perception by some that the AP physics exam does not appear to help first year physics students very much. Those who test out of first year physics often do not do very well. Bernie Khoury, AAPT Executive Officer, suggested that the committee invite Will Pfeifferberger to discuss the AP exam at a future meeting. The committee seeks to avoid the appearance of attacking the AP exam, as it is very popular with parents and students.

### 4. State Licensure Standards

The Committee has an ongoing initiative to monitor changes in these standards. The hope is to alert physicists (and others) of impending reviews or changes and avert changes detrimental to science education.

5. A letter was sent to the new editor of the American Journal of Physics, Jan Tobochnik, to encourage him to consider a shift in editorial policy to include publication of research in physics education.

## 6. Accreditation of Physics Degree Programs

The issue was raised and pros and cons discussed. The National Task Force on Undergraduate Physics (NTFUP) discussed accreditation and decided not to pursue the issue on their agenda. Stein and Hodapp will co-author an article on accreditation for the Forum Newsletter in order to initiate an on-line discussion of the issue. Input will also be sought from AAPT.

7. The Committee received a report on the multi-agency initiative for the development of digital libraries in various fields, in particular the National SMET Education Digital Library which is being supported by the NSF Division of Undergraduate Education. NSF will grant funds the start-up of such a digital library but not to maintain it. No "library" exists yet in the field of physics. . The Committee was particularly interested in encouraging NSF to continue to put their products on line and perhaps eventually on the Eisenhower Clearinghouse Site

## **Actions**

1. State Licensure Standards: request that the Forum on Education identify core groups in states where changes are anticipated to monitor changes and report back

2. COE supports the FEd initiative to establish a prize in physics education

3. The Committee adopted the Statement on Student Assessment and Accountability (attached)

4 The Committee agreed in its discussion that physics departments should encourage students to consider teaching as a career. Leon Lederman volunteered to write an article on teacher recruitment and retention for the APS News. (The PhysTEC program also addresses the initial retention of teachers as well as their recruitment.)

5. In April, the Committee made significant input to a statement prepared by the K-12 Science, Mathematics, Engineering & Technology Education Coalition (attached).

## **Report to the Executive Board - Committee on Education November 2001**

The Committee on Education met this fall in Minneapolis and addressed several of the issues that have come before the committee previously.

Reports were received about many on going projects the affect education: PhysTEC, NTFUP, FEd, MERLOT and the Digital Library. The Committee voted to ask that the APS to support (\$1000) the FEd open house at the April Meeting and to encourage plenary sessions on educational topics at the March and April meetings.

The two principal issues discussed by the committee were once again 1) licensure of teachers and 2) program accreditation.

#### Licensure:

What to do, and how to do it are the questions. Ted Hodapp has identified the states which may be taking action soon. COE and FEd will work to identify interested physicists in each state to be ready to act. Workshops for those people may be appropriate.

#### Program Accreditation:

Here again the questions are: who wants it and how to do it? The mean number of bachelor graduates is on 3 per year, so the small school are the audience to address. The Committee will work with FEd and/or AIP Statistical Division to get information from these department about their feelings regarding accreditation, and to query those that hire recent graduates to see if Accreditation would be useful.