

Joining forces for better science education

A year ago, our September special issue called attention to the crisis in high-school physics education and explored ways members of the physics community could contribute to encouraging more students to study physics and to improve the quality and numbers of science teachers. During the past 12 months in our new more intensive coverage of education in "Physics Community" we have seen important gains by physicists toward these goals. For example, in December (page 55) we reported that the Joint AAPT-APS College-High School Interaction Committee began publication of a newsletter about joint efforts of high schools and colleges to improve high-school physics programs. And in April (page 9) Klaus Schultz reviewed the successful operation of the Math-Science-Technology Education Project at the University of Massachusetts in training science bachelors to teach in high schools. The July issue (page 67) reports on the efforts of Edgar Edelsack and his wife to persuade the American Association of Retired Persons to launch a volunteer program for senior scientists and engineers.

Now, we are pleased to observe the beginnings of a collaboration among the relevant professional groups that can multiply by many fold the efforts that a single discipline, such as physics, can bring to bear on the science education problem. Last month the National Science Teachers Association, with the support of the Carnegie Corporation, held a national action conference on science, technology and mathematics education. Representatives attended from science and engineering, industry and teaching. Along the same lines, as a result of an initiative by Richard Gowen, president of the Institute of Electrical and Electronics Engineers, plans are underway for another conference this fall of all concerned education, engineering and science organizations to discuss ways in which they can join together to improve pre-college math and science education.

These welcome collaborations are taking form just at a time when it is beginning to appear that the science-education problem may be even more difficult to turn around than we thought a year ago. Specifically the question is being raised

more and more frequently of whether a full resolution of the education crisis will not first require a significant enhancement in public understanding and appreciation of science and technology. In the final analysis the quality of pre-college school science education rests in the hands of each local community. Realistically we can only expect substantial improvement in the quality in a given school when the members of the school board and the people of the community who elect them are themselves personally convinced of the unique importance of science and technology to our society.

AIP and its Member Societies have long been involved with vigorous programs to improve public understanding. Examples are the press rooms operated at society meetings by the AIP Division of Public Information and the radio and tv spots disseminated by this division for the past several years. Public understanding will be a major item on the agenda of the fall conference. There will be ample opportunity for groups such as AIP to share the experiences they have had in working for public understanding and to mobilize the combined efforts of all the groups in support of the most promising approaches.

In particular we would call attention to the proposal made in the August Guest Comment (page 9) by Alvin Trivelpiece, director of the Office of Energy Research. He suggests that October of every year be designated "Science and Technology Awareness Month" during which scientists and engineers would make special efforts to give talks about their work to local civic or service organizations such as the Lions, Kiwanis or Rotary. In this and other activities at the local level to encourage public understanding and better science education, we urge physicists to follow the lead of the national professional groups and greatly amplify the effects of their efforts by joining forces with fellow scientists and engineers in their neighborhoods.

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