SCIENCE EDUCATION

COPFIC Report

The AAPT-AIP Committee on Physics Faculties in Colleges, whose overall findings are reported elsewhere in this issue, has prepared a description of five college physics departments which are unusually effective in training physics majors. The report, entitled *Toward Excellence in Physics—Reports from Five Colleges*, is intended to help faculty and administrators to assess their own programs and provide a basis for improving the teaching of physics in four-year colleges. A composite picture is given of the five unnamed schools with regard to type of institution, salary and benefits, faculty, curriculum, students, and facilities. Also included are case studies of each individual school according to the same categories. The findings of the Committee confirmed the view that there is no fixed pattern for success; there are, however, certain specific characteristics common to the successful institutions which enable them to attract able physicists to their staffs. Copies of the booklet have already been sent to physics department chairmen and the presidents of their institutions; additional copies, while they last, can be obtained by writing to COPFIC, American Institute of Physics, 335 East 45th Street, New York 17, N.Y.

New Education Bills

During the first few months of the current session of Congress, hearings were reopened in both the Senate and the House of Representatives to extend and revise the National Defense Education Act, which is scheduled to expire in June of 1965. In addition to the several bills on the subject which were brought forth in the first session of the 88th Congress, two new bills were introduced in February.

Representative Edith Green of the House Special Subcommittee on Education has introduced HR 9846, a bill to amend and extend the NDEA for two additional years. Under its provisions, the total authorization for student loans would be increased from $135 million to $150 million, and the $800 000 institutional limit on loan funds would be lifted. Limits on individual loans would be increased for graduate students from $1000 to $2500 annually, with a maximum per individual of $10 000 for a student's undergraduate and graduate years. Graduate fellowships would be raised in number from the current 1500 to 5000 in 1965, 7500 in 1966, and 10 000 in 1967. Federal income tax deductions up to $1000 would be authorized for college tuition, fees, books, and supplies.

In the Senate, Vance Hartke of Indiana has introduced S 2490. This bill provides for an increase in the NDEA student loan authorization to $200 million in 1965 and $250 million in the next three years, as well as removal of the $800 000 institutional limit. For graduate students, the maximum annual loan would be raised from $1000 to $2500 with a $10 000 maximum total; for other students the maximum annual loan would become $1500, with a maximum total of $7500. Another feature of the bill is a program of federal scholarships, under which $37.5 million a year would be authorized for scholarships of up to $1000 a year for up to four academic years. S 2490 also provides for a program of loan guarantees to insure up to 90% of commercial loans to students, totaling $50 million in 1965, $100 million in 1966, and $150 million in 1967. Another section would finance work-study programs by which undergraduate students might earn up to $1250 during an academic year and graduate students up to $2500.

Reactor Technology

Applications for the 1964-65 session of advanced 12-month programs in reactor technology offered by the Oak Ridge School of Reactor Technology are now being accepted by the Atomic Energy Commission.

The nuclear reactor operations supervision program prepares the scientist to supervise the safe operation of a research or power reactor. Emphasis is placed on experience in reactor operation following instruction in scientific principles associated with a nuclear reactor.

The nuclear reactor hazards evaluation program develops the student's ability to evaluate the many hazards of a reactor operation. Following nine months of extensive work in the basic engineering science of reactors, the students spend the remaining period evaluating the hazards of a proposed reactor.

The 1964-65 session will begin September 21, and the deadline for applications is June 15. Applicants should possess a bachelor's degree in physics, chemistry, mathematics, or in one of the engineering sciences. More information can be obtained from the Education Division, Oak Ridge National Laboratory, PO Box X, Oak Ridge, Tenn.

Summer Programs

An eight-week seminar in theoretical metallurgy on energetics in metallurgical phenomena will be held at the University of Denver from June 15 to August 7. The purpose of the seminar is to supply a common focusing point for the application of the basic sciences to the understanding of matter. The program is as follows:

June 15-19, theory of rate processes (Henry Eyring); June 22-26, application of kinetics to metallurgical systems (Milton E. Wadsworth); June 29-July 10, stochastic processes and reaction kinetics (Elliott W. Montroll); July 13-25, continuum mechanics approach to deformation and material properties determination (E. H. Lee); July 27-Aug. 7, effects of high pressures on condensed state reactions (Larry Kaufman).

Attendance at the seminar is open to all qualified persons with no fees required. Post-doctoral participants are eligible for stipends of $100 per