

the most enduring science-government institutions, the seminar breakfast, where one or two scientists—whenever possible, well-known ones—explain the technical intricacies and policy implications of an issue to a privately convened group of congressmen.*

But after that early activist period—in which FAS members even consulted with Metro-Goldwyn-Mayer on a movie about the bomb titled “The Beginning or the End”—FAS became what its older members variously describe now as “a sleeping giant,” “geared only for crisis action,” or “virtually nonexistent.”

But although FAS’s profile appeared to have sunk so low that, to some people, it was barely visible, FAS did a number of things between the late 1940’s and 1968: It backed the creation of the National Science Foundation; it reported on chemical and biological warfare before they became a public issue; it helped obtain more freedom for foreign scientists’ entry into the United States and for U.S. scientists traveling abroad. And during the McCarthy period, a committee on security aided scientists and nonscientists whose loyalty was under fire.

Two important campaigns in matters atomic during this so-called “dormant” period were a successful campaign to have the United Nations appoint an international committee to study the effects of radioactive fallout in 1955, and a breakfast seminar program in 1961 on civil defense.

FAS also tried to protect the interests of its constituency, the scientists. When Allen V. Astin, director of the National Bureau of Standards, was threatened with the loss of his job as a result of the NBS stand on battery additives, FAS took part in his defense. When Lewis L. Strauss, chairman of the AEC, was nominated to be Secretary of Commerce in 1958, FAS joined the opposition to the nomination.

A full-time office in Washington was maintained for most of the 1950’s, which put out the *FAS Newsletter*, a cousin publication to *Science and Public Affairs: Bulletin of the Atomic Scientists*, also born during the postwar atomic scientists’ movement. During the 1960’s attorney Daniel Singer, general counsel to the FAS, served as a part-time Washington coordinator.

The scientists who formed FAS in 1945 were primarily physical scientists

* See Alice Kimball Smith, *A Peril and a Hope: The Scientists’ Movement in America 1945–47*, (Univ. of Chicago Press, Chicago, 1965) (Library of Congress Catalogue No. 65-17300).

Cost Squeeze in Higher Learning

Two more surveys focused on higher education financing have recently rolled off the presses, both of which paint some grim detail into the troubled fiscal picture for private institutions.

One study, sponsored by the Commission for Independent Colleges and Universities of Pennsylvania (CICU), combines data from 68 private institutions in the state. It concludes that a “rapidly progressive financial deterioration has set in,” threatening some institutions with total disaster. The other report, by the National Science Foundation (NSF), finds that, in the area of science research and education, public institutions are doing somewhat better than private ones in their efforts to compensate for increased costs and swelling enrollments.

Recession Aggravates Ills

The Pennsylvania survey, which covers 90 percent of the state’s private colleges and universities, finds that the decreased level of federal and state support and the depressed economic situation are only accelerating a problem that has been created by rapid expansion, efforts to raise educational quality, and heavy inputs for student aid—which has been increased from \$22 million in 1965 to \$39 million in 1970. While the present rate of tuition hikes is 6.9 percent a year, costs are climbing at a rate of 10 percent a year.

These factors have made for an aggregate \$1 million deficit for the 68 schools, which 5 years ago were \$16 million in the black. The report warns that the total deficit will reach \$41 million in 5 years unless conditions are changed markedly.

A careful strategy of retrenchment, says CICU, will have to be pursued on all fronts: physical growth, enrollment, academic resources, student services, and scholarship aid. But most of all, new sources of revenue must be found, because “while remedial actions will bring the institutions some financial relief, hard-won gains in program enrichment and increased services will, on the whole, be endangered.”

Things Could Be Worse

The NSF study, supervised by Charles Falk, director of the Division of Science Resources and Policy Studies, is only mildly gloomy in comparison. Entitled *Impact of Changes in Federal Science Funding Patterns on Academic Institutions*, it charts the results of surveys, taken in 1969 and 1970, of 104 public and private institutions that have doctoral programs in science. Expenditures for research and education in the sciences have increased over the past 2 years, but are not keeping pace with growing enrollments and higher costs, it states. Most of the public institutions have been able to compensate for sluggish federal funding increases with money from other sources—chiefly the state. But the largest public institutions (those receiving \$20 million or more in federal support), as well as private institutions, whose main source of additional income is from tuition increases, are feeling the pinch. Thus, for example, 28 percent of the private schools, as compared to 9 percent of the public ones, reported overall spending cutbacks in academic science last year.

The fields that have suffered most, says the report, are physics and electrical engineering, which showed a 1 percent expenditure increase from 1969 to 1970. Best off were economics and psychology, for which expenditures increased by 16 and 12 percent, respectively.

The general effects of changes in federal funding patterns, according to the respondents, included impairment of graduate programs, institutional problems related to planning and the emergence of new departments, and the cramping of research efforts.*—C.H.

* The NSF report may be obtained for 75 cents from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. The *Study of the Financial Condition of Independent Higher Education in the Commonwealth of Pennsylvania* is available (cost not yet determined) from CICU, 607 Executive House, 101 S. Second St., Harrisburg, Pa. 17101.