

Budget Cuts Hurt Many— But Not as Badly as Feared

The financial outlook for university physics remains grim, according to a survey just completed by the Committee on Physics and Society (COMPAS) of the American Institute of Physics. More than 80% of the department chairmen who answered said their staffs had been affected by budget cuts. Although some chairmen offered gloomy comments, the consensus appears to be that things are not as bad as some had feared a year ago.

Lewis Slack, COMPAS secretary, queried 197 PhD-granting physics and astronomy departments; 131 replied. He found that research projects of 1361 professional staff members have been affected. Extrapolation to the schools that did not answer produces an estimate of 2000 for all schools. The number of those who lost all financial support is much smaller, however. A COMPAS survey in the fall of 1967 had revealed that department chairmen expected 21% of those individuals affected to lose all support; the actual figure was 7.5%, or 102 physicists.

The mean number of faculty members continues to grow, but at a reduced rate. The growth rate has slipped from 9.1% in 1966-67 to 7.5% for the 1968-69 year. The projected rate for the year starting next September is 3.2%.

Apparently fewer faculty members than usual are leaving their posts. The number of new faculty members during the 1968-69 year was as projected, while the total turned out to be larger than anticipated.

Fewer postdoctoral fellowships were awarded during the year, but the decline was not as great as had been feared. The mean number of postdoctorals per department dropped from 7.9 to 7.4 rather than the projected 7.0. The mean number of new postdoctoral appointments per responding department fell from 3.8 to 2.8, however, even lower than the projected 3.0. For 1969-70 the study projects a mean of 2.2 new postdoctorals per department, with a mean total per department of 6.5.



EUROPEAN PHYSICAL SOCIETY members gather outside the Palazzo Vecchio in Florence during the society's first scientific meeting, "Growth Points in Physics." One American, Victor Weisskopf, was elected to the council.

The total number of graduate students continued its slow decline of the past three years, but a reversal is expected in 1969-70. Higher draft calls could make decline inevitable, however.

On the question of capital expenditures, 34% of the chairmen who responded said they had to alter plans for new buildings or equipment. Items scrapped, delayed or scaled down include accelerators, on-line computers, optical and radio telescopes and physics buildings.

The chairmen supplied comments along with their figures, some of them eloquent pleas for help. A sample of the more dismayed:

- "We have abandoned plans to construct a new physics building.

Political Storm Breaks over Appointment of NSF Director

Whether anybody likes it or not, the National Science Foundation is now in the center arena of national politics. The President's decision to reject Franklin A. Long of Cornell as the next director of the National Science Foundation because of his criticism of

There is a serious question of whether we can proceed with a PhD program."

- "If the current trend continues, studies of this kind will be useless in three years. Except in the largest, highest-quality schools, the back of most research efforts will have been broken."

- "We are advising many students to move to engineering or engineering science."

- "What you have not learned from this questionnaire is that young professors cannot get support in the present climate. Over the past two years we have lost three assistant professors because they could not obtain support. At present we have two assistant professors who are willing, capable, but are unsupported."

the antiballistic-missile system opened a crevasse; even when Nixon publicly reversed himself two weeks later and offered the job to Long again (Long rejected it), the gap was not entirely closed.

Traditional party politics was not at

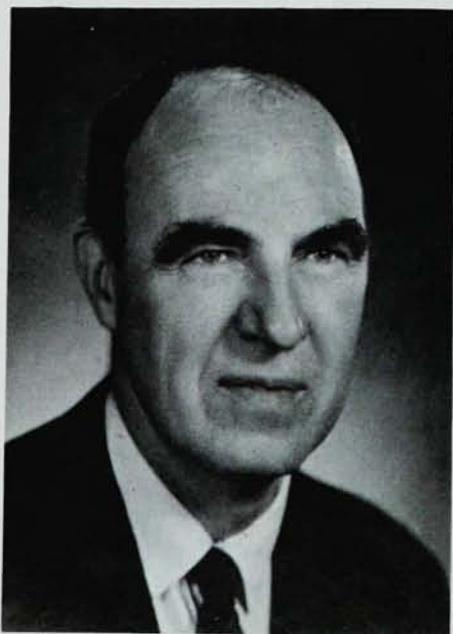
issue. Nixon did not object to Long because he was a Democrat and had served on Scientists and Engineers for Humphrey-Muskie during the 1968 campaign. As the President explained at a news conference on 18 April:

"... But to have at this time made an appointment of a man who quite honestly and quite sincerely—a man of eminent credentials, incidentally—disagreed with the administration's position on a major matter of this sort: We thought this would be misunderstood."

In December Long published in the *Bulletin of the Atomic Scientists* an article titled "Strategic Balance and the ABM" in which he questioned the technical feasibility of ballistic-missile defenses and warned that their deployment could have grave implications for both the balance of power and for European weapons policy.

Now vice-president for research and advanced studies at Cornell, Long is no stranger to government science policy-making. During World War II he served on the Air Force Science Advisory Board; he was chairman of the chemistry advisory committee of the Air Force Office of Scientific Research during 1959–63. He was a member of the President's Science Advisory Committee in 1961–66 and was assistant director of the Arms Control and Disarmament Agency in 1962–63.

Even before Nixon acknowledged publicly that he had decided against Long, reaction was heard on Capitol Hill. Rep. Emilio Q. Daddario (D-



LONG

APS, SPS COUNCILS, COMPAS MEET IN WASHINGTON

The American Physical Society Council has recommended a constitutional amendment that would make it possible for younger physicists to be elected councilors and officers of the society and its divisions. The amendment, which now must go to the members, deletes the requirement that councilors and society and division officers be society fellows.

At the same council session, held 29 April during the Washington meeting, the council voted to go ahead with the 1970 meeting in Chicago. The decision was based on advisory balloting by the members which resulted in a 8559–6405 vote to support the council position and proceed with the meeting in Chicago.

Acting on a petition submitted at the New York meeting, the council accepted the recommendation of its committee on divisions that a new division on science and society was not the appropriate means to deal with these subjects. Instead the committee recommended that the president name a large committee, including as members signers of the petition, to:

- plan programs for the society in

the field of science and society, and

- recommend to the council a new mechanism to deal with these subjects.

In other business, the council decided to break *The Physical Review* into four journals as of 1 Jan. 1970. Those devoted to general and nuclear physics will appear monthly; those covering solid state and particles and fields will be published twice a month.

During the Washington meeting the Committee on Physics and Society (COMPAS) of the American Institute of Physics reviewed a draft policy statement of where and how AIP should become involved in nontechnical matters. Lewis Slack, associate AIP director, will revise the draft. Any resulting recommendations will go to the AIP Governing Board.

Also in Washington the Council of the Society of Physics Students, another AIP activity, held its first meeting since the society was formed a year ago (an executive committee has conducted society business). The council recommended that its constitution be amended to provide for chapters at junior colleges.

Conn.), chairman of the Subcommittee on Science, Research and Development, took the House floor 17 April to declare:

"It is self-evident that recruiting a director for the National Science Foundation of the desired competence and ability and who will have the confidence of the scientific community will now be extremely difficult, if not impossible. I hope this has only been a gross misunderstanding and that the administration does not seriously propose to make support of the ABM a prerequisite for public service."

(Two weeks later, however, speaking to the American Physical Society in Washington, Daddario cautioned against overreaction, saying it could only harm NSF.)

On 18 April, while the President was meeting the press in Washington, the board of the Federation of American Societies for Experimental Biology, meeting in Atlantic City, called the decision "... both unfortunate and in error and potentially serious in its long-term effects on American science in placing the National Science Foundation in the political arena where science does not properly belong."

Exactly how close to the job Long got before he was rejected is not clear. Rep. Howard W. Robison of Oswego,

N.Y., a senior Republican whose district includes Ithaca, hinted to friends at Cornell on 9 April that Long would be named two days later. On 11 April Long did go to Washington and met with Lee A. DuBridge, the President's science adviser. DuBridge was quoted later as having said that after discussion of the political situation, the two men mutually agreed to end any further talk of the post.

A spokesman for DuBridge told *PHYSICS TODAY* that because the President had discussed the issue, DuBridge did not plan any further comment.

Long has declined to go into detail about exactly what happened. On 17 April he issued two statements. The first read:

"In late February I was asked to consider an appointment as the next director of the NSF. Since then I have had constructive conversations with Dr Lee DuBridge and up until a few days ago I was under the impression that everything was in order and in fact had an appointment with President Nixon to enter into formal discussion.

"On April 11, when I went to Washington to keep the appointment, I found that the situation had changed and that new elements of a political nature relating to the antiballistic-

missile system had arisen. As a consequence I was presented with a situation which I found unacceptable and I considered that the discussions were effectively terminated.

"I believe that conversations between the President's office and prospective appointees should be carried on in confidence and do not feel at this time that it would be constructive to comment further on this situation. As of now I consider the entire issue closed."

The second said:

"I am distressed at indications that the circumstances surrounding my consideration as director of NSF may react adversely on the Foundation itself. The NSF is very important, both for the future of science and for the

welfare of the United States. Because of my strong desire that the Foundation not be subject to still further difficulties, I do not believe that any further comment from me at this time will be useful."

The administration had not indicated how many other men are being considered or given any timetable for the appointment by 20 May. Leland J. Haworth's six-year term expires on 30 June.

The National Science Board made clear in its own statement, issued 21 April by Chairman Philip Handler, that it would continue to advise the White House on potential candidates solely on the basis of scientific and administrative competence. The statement read in part:

"The board deeply regrets the recent break with this established tradition and essential practice [keeping NSF sheltered from politics] when political concern was made paramount in the consideration of an eminently qualified candidate for the position of director. . . . The board will do all it can to minimize the resulting damage to internal morale and to the standing of the National Science Foundation in the community."

All 25 board members approved the statement except Haworth and Agriculture Secretary Clifford M. Hardin, who disqualified themselves as government employees, and Athelstan F. Spilhaus, who could not be reached by the committee drawing up the statement.

Activists Take ABM Fight To Congress, White House

Politically active physicists worked at translating rhetoric into action at the Washington meeting of the American Physical Society—organizing visits to congressmen and senators, collecting and delivering petitions and even picketing the White House.

Opposition to the Safeguard anti-ballistic-missile system became the rallying point. Three days of activity culminated in a march from the hotel to the White House, where about 200 physicists picketed while a five-man delegation delivered petitions to Lee A. DuBridge, the President's science adviser.

On Monday afternoon Rep. George E. Brown Jr (D-Cal.) arranged a Capitol news conference for the Union of Concerned Scientists, a group of about 200 at MIT formed during the planning of the 4 March research stoppage. Brown and Sen. Edward W. Brooke (R-Mass.) distributed to all members of Congress a UCS booklet against the missile system.

Recruits were signed up Monday night during a "briefing" conducted by the Federation of American Scientists, formed a generation ago, and the Scientists for Social and Political Action, formed last February. While a variety of speakers filled in the 300 physicists present on the latest rounds of the ABM debate and the current nose count in the Senate, Barry M. Casper of Carleton College signed up individuals for appointments with their own senators and congressmen. He reported Thursday that visits had been

made to 53 senators or their legislative aides, including the dozen or so who had not taken a public stand on the issue.

Tuesday night SSPA distributed questionnaires during the official APS general session on technical aspects of the ABM (the July PHYSICS TODAY will carry a meeting report). Nearly 3000 physicists, wives and friends jammed the main hall to hear Eugene P. Wigner and Donald Brennan speak for the missile system and Hans A. Bethe and George Rathjens speak against it. 1216 responded to the questionnaire, with 76% opposing Safeguard, 21% in favor and 5% undecided. APS was embarrassed when some news media incorrectly reported these results as an official vote of the entire society.

The next day 105 physicists stepped off from the Sheraton-Park at noon, marching down Connecticut Avenue to their 1:30 appointment with DuBridge. Unknown to most of them, DuBridge was then at the hotel, having lunch with APS President Luis W. Alvarez and other officials. He left the lunch in time to be in his office when the marchers arrived. Another 100 came by bus and cab.

Thomas Kirk of Harvard, who with David Nygren of Columbia organized the march, told newsmen after the meeting that DuBridge had received them very cordially and had promised to bring their petitions to the President's attention at the earliest opportunity. DuBridge said the strategic arms talks scheduled with the Soviet Union would go ahead as scheduled



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