

PHYSICS AND GOVERNMENT

Obtaining surplus equipment

Each year federal agencies give away millions of dollars of surplus equipment. Excess apparatus and supplies from one agency are first made available to other agencies and departments of the federal government. What is left over amounts to \$8-\$10 million a year in excess property that the agencies donate to the academic community. The Atomic Energy Commission, for example, donates \$5-\$6 million a year of such apparatus as cyclotrons, oscilloscopes, power supplies, scintillation counters and computers. More than half of this apparatus is in excellent condition—35% unused and another 35% usable without repairs.

Physicists who want to find out about available equipment for donation should contact their state agency for surplus property (there is one in every state). These state agencies have warehouses filled with surplus federal equipment. Though no lists of apparatus are issued, when a physicist tells his state agent about a desired piece of equipment, the agent will keep the request on record and notify the physicist when such surplus equipment is available.

Inflation and physics

The physics community, which has had to live with higher costs and reduced federal funds in the past, is feeling the effects of an accelerated inflation. Major national laboratories report that increases in standard equipment costs this year are about three times those of past years. Suppliers of physics educational equipment say they can maintain their normal rate of price increase only with difficulty. Physics students will have to pay higher academic charges this year, and physics graduates are being offered higher competitive salaries. As it has in the past, the government is trying to stem the inflation by cutting federal expenditures in the midst of the fiscal year. President Johnson has directed federal agencies to defer their commitments

during the current year, an order bound to affect broad areas of physics funding.

Potential physics students now find it more difficult to obtain college tuition money under the government's college-loan program. This program carries a maximum interest rate of 6%, which is also the current prime business rate. Bankers are reluctant to lend money to students at the same rate

they lend it to General Motors, especially under terms requiring no repayment until after graduation. Costs of attending college also continue to rise, with three out of four institutions reporting increased student charges (according to a survey by the Life Insurance Agency Management Association). Median academic-year charges at public colleges and universities were \$963 for in-state students and \$1325

RESONANCES

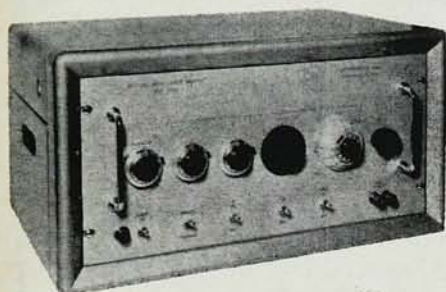
Tougher sledding for science legislation in the next Congress is expected by many Washington observers in the wake of the November elections. While such key science committee chairmen as Rep. Holifield (D.-Calif.), Rep. Daddario (D.-Conn.) and Rep. Reuss (D.-Wis.) kept their seats, several strong supporters of expanded federal aid to education and research were defeated, including Sen. Douglas (D.-Ill.), Rep. Schmidhauser (D.-Iowa) and Rep. Todd (D.-Mich.). Observers point out that both parties in Congress as well as the administration will reflect the trend of the election pointing to a slowdown in "Great Society" programs.

The only PhD technical scientist in Congress was defeated in his bid for reelection. Weston E. Vivian (D.-Mich.) lost to Marvin L. Esch in a close race with relatively few ballots cast. Esch received 65 039 votes to Vivian's 62 327. Vivian, who is a member of the House Science and Astronautics Committee, has indicated that he intends to run again in 1968. Cameron B. Satterthwaite, professor of physics at the University of Illinois, lost heavily in his attempt to win a House seat. Though he received only 36.9% of the vote against incumbent Republican William L. Springer, Satterthwaite will try again in 1968.

Defective management of federal research laboratories has been charged by the House Research and Technical Programs Subcommittee, headed by Henry S. Reuss (D.-Wis.). Based on a case study of in-house federal pollution research conducted by the Library of Congress, the subcommittee concluded that the federal government, though it spends nearly \$4 billion annually on R&D in its own laboratories, "does not know exactly how many laboratories it has, where they are, what kinds of people work in them or what work they are doing . . . Complete information on projects being undertaken by federal laboratories and cost of those projects is not available."

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for out-of-state students; at private co-educational institutions, the median charge was \$1868; and at private men's colleges \$2282. Representative total costs for the current academic year are Caltech, \$2874; MIT, \$3030; Princeton, \$3020; and Harvard, \$2890. Tight money is also a factor in delaying construction of educational facilities. In Texas, for example, the building of nine state senior colleges may be held up by failure of the state to market about \$20 million in 4% bonds; the interest rate is apparently too low to attract many buyers in today's market.

Though physics students are paying higher charges to attend college, correspondingly higher salaries await them when they graduate. The final report of the College Placement Council salary survey shows that physics bachelors were offered an average of \$7968 per year during the 1965-66 recruiting season, while an MS in physics was worth an average of \$9312 per year, and the physics doctorate \$13 656 per year. The US Civil Service, endeavoring to maintain a competitive position in the scientific job market, announced new rules that would enable beginning PhD physicists with superior qualifications to earn up to \$13 201 at grade 12.

Equipment costs up. Inflationary increases were also noticeable in a PHYSICS TODAY check of standard equipment costs at major laboratories. Purchasing agents stressed, however, that big rises could only be measured with accuracy in such standard repetitive laboratory gear as electronic hardware, transformer components, glass tubing, etc. It was impossible, they added, for them to estimate price rises in increasingly sophisticated research equipment. Brookhaven indicated that the costs of standard equipment this year had risen between 5 and 10% compared with an average of between 1.5 and 2% in years past. Oak Ridge concurred with the Brookhaven estimates and the AEC said that price increases for many laboratory items greatly exceeded those of previous years.

Another survey of physics educational suppliers found that costs this year had gone up between 5 and 10%, which is about the same price increase as in years past. "Everybody in this

field," said one major supplier, "is trying to hold the line. But with wage and overtime pressures what they are, we just don't know what will happen."

Johnson acts. In his 8 Sept. message to Congress on slowing down the overheated economy, the President said "I have already directed that lower-priority federal programs be reduced \$1.5 billion in fiscal 1967. Federal agencies have been directed to defer, stretch out and otherwise [reduce] new orders and commitments. Each major agency has been given a savings target, with orders to meet that target."

What this will mean when agency budget officers implement Johnson's orders, can only be conjectured now. The President, and Eisenhower before him, has sought such reductions in the past. AEC budget officers told PHYSICS TODAY that judging from their past experience, they will probably delay for six to ten months about a dozen projects. These projects will involve university computers, small accelerators and other items now in the preliminary planning stage. Last year, in response to a similar Johnson order, the AEC deferred some six facilities involving about \$30 million. A National Science Foundation budget officer said only that "you can be sure they are going to make a very close scrutiny of all our programs to see where money can be scraped."

President signs education bill

One of the ironies of the \$3.6 billion higher education bill that President Johnson signed on 3 November is that higher education got almost exactly what it asked for but considerably less than what Congress was willing to provide. Testifying before Congress earlier in the year, The American Council for Education and other groups expressed the view that, because of the Vietnam situation, it was reasonable to fund higher education programs, and in particular the facilities programs, at roughly the same levels as last year. This view was questioned by Senators Wayne Morse (D-Ore.), Robert Kennedy (D-N.Y.) and Ralph Yarborough (D-Tex.), who rebuked higher-education spokesmen for rubberstamping the administration's proposals. Tell us what you