

The Draft—Next Few Months Crucial for Graduate Students

Will graduate students be drafted? Some astute Washington observers say yes and others no. Meanwhile, academic analysts predict that even if Johnson does issue his order to draft graduate students, it will not make much of a dent in the graduate school population.

"We believe that graduate students now in deferred status will not be affected at all, that deferment of prospective graduate students will not be materially diminished, and that there will be no wholesale induction of postgraduate students in the fall. We therefore advise graduate schools and students to proceed with their plans for the fall term in the normal manner." So says Gustave O. Arlt, president of the Council of Graduate Schools, commenting on academic concern over President Johnson's message on selective service.

The President, in his message, had declared that he will issue an executive order specifying that no deferments for postgraduate study be granted in the future, except for medical and dental students. There are, however, many Washington observers such as Arlt who believe that Congress will override the President and write into a new draft law statutes protecting deferments for graduate students. That the prevailing sentiment in Congress favors continuation of educational deferments is generally agreed by most analysts. But that Congress will take the next step and successfully oppose Johnson's wishes is not as well accepted.

Rep. Mendel Rivers (D-S.C.), chairman of the House Armed Services Committee, and others say they've beaten the President before on military matters and they can do it again. But there are many like Sen. Henry Jackson (D-Wash.) who, though a strong advocate of graduate student deferments, has indicated, "If that's the way the President wants it, then we'll go along with it." Meanwhile Johnson has lined up a powerful

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Taxing advertising revenues of scientific and other nonprofit organizations will result from new rules the Internal Revenue Service says it will issue in the next few weeks. Many believe the proposed regulations will jeopardize education and information activities (supported by advertising income) of such groups as the American Institute of Physics, American Institute of Aeronautics and Astronautics, and American Chemical Society. Strong criticism against the proposal, however, is certain to be expressed, and such pressure may cause IRS to withdraw the proposed ruling.

array of administration spokesmen in his behalf. Secretary of Labor W. Willard Wirtz told Congress that there is "nothing in the civilian manpower needs of the economy" to warrant student and occupational deferments. Burke Marshall, head of the Presidential Commission on the Draft, told a Senate panel that student deferments are basically unfair and that given the will, the means, and the intelligence, any student can escape the draft.

Consequently, one analyst of the balance of power on this issue, Betty Vetter of the Scientific Manpower Commission, told PHYSICS TODAY, "I have a horrible feeling that Congress won't stop Johnson when he decides to draft graduate students. I definitely think critical occupation deferments will also be rescinded. It's just a matter of time." Veteran congressional committee staffs, who have watched countless dogfights between the President and Congress, would make no such positive statements. "The odds are about even on this issue," said a House Armed Services counsel.

What would happen if Johnson's proposal to eliminate new graduate deferments was put into effect? Academic spokesman say that the proposal would probably not have a substantial effect on next year's graduate enrollments. For under the President's plan, 19-year-olds and graduating college seniors would all be put into a draft pool. From a pool of this size, comparatively few 1967 college grad-

uates would be drawn. And since Johnson used the words "in the future" in his proposal, it is assumed that students now deferred for graduate study would be permitted to finish.

Congress Prods AEC on Research Support

More money for the national laboratories, a 400 GeV instead of a 200 GeV, strong support for controlled fusion—it seemed more like a physics colloquium than the annual spring hearings of the Joint Congressional Committee on Atomic Energy. Once again committee members sought to defend the projects and laboratories of basic research against the severity of administration budgets. For the Joint Committee, as Harold Orlans notes in his book *Contracting for Atoms*, acts "as an essentially promotional body which has prided itself on pushing the more deliberative Commission into program expansions . . ."

National laboratories. Is the AEC putting up a strong enough case for basic research in the laboratories? The committee believes the commission could do a better job. AEC research division head Paul McDaniel told the committee, "We probably will never have appropriated enough funds to satisfy all the demands of all the laboratory scientists. . . . We recognize that some of our laboratories do not have sufficient funds to operate in the way their scientists believe they

should be operated. . . . We optimize our [budget] request so that we get as much funds as is consistent with the overall economy." But the committee was not at all satisfied by this explanation. "I don't know why," said Craig Hosmer (R-Cal.), "we should build Omnitrons, Scyllacs and these other things if we are not going to have funds to operate them efficiently. . . . The laboratories are being operated excellently . . . but not to maximum advantage. They could operate more hours a week and turn out more good research if they had more money. . . . My concern is that the laboratories may be completely squeezed out in this tight economic situation. Perhaps the AEC is not putting up a strong enough case, hardly enough to get the share it should have in these areas."

The 400-GeV. Some months ago, the Berkeley group that prepared the original 200-GeV design advanced a proposal for a higher-energy machine. They suggested the possibility of making a larger ring and then putting in **only a fraction of the magnets** so that additional magnets could be added later when one wished to go to higher energy. Alternatively, the route to higher energy could also be left open if one put in all the magnets required for higher energy but ran them at lower power and lower duty cycle. The AEC is reportedly cool to this proposal, but when it was broached before the Joint Committee, they were enthusiastic. AEC commissioner Gerald Tape estimated that a 300-GeV option would require an additional \$20 million and a 400-GeV option \$40 million more. But on higher energy as well as higher intensity, the joint committee seemed to prod the commission. Said Sen. John Pastore (D-R.I.), "I think we can be penny wise and pound foolish. All of us were very enthusiastic about the original machine with higher intensity. We were not frightened off by the amount of money involved, and if it needs to be done, it needs to be done. In time we are going to end up with it anyway. . . . Why throw away the taxpayers' money . . . when we know that we may have the same kind of machine if we did it all at this time?"

But higher energies and intensities

cost more money—funds that would undoubtedly be derived from other AEC areas of scientific support. "If we had no budget restrictions for a fully scoped machine," said Commissioner Tape, "then we would like to sell the scientific community, the administration and the public [on its justification]." "Where would your toughest job be in selling?" asked Rep. Melvin Price (D-Ill.) "The toughest job," replied Tape, "would be in selling the nonhigh-energy physics community. . . . We are talking about a cost differential of the order of \$60 million [for higher intensity] . . . and there are other segments of the scientific community that are also looking for support. . . . It is quite important to ask yourself about the returns on the investment. . . . In the total judgement for support of R & D in this country, there will be questions like this asked. Here I think I would have my major difficulty."

Fusion research. A high-priority program like controlled thermonuclear research must be protected from the fiscal encroachments of lesser items, noted the committee. Amasa Bishop, head of the AEC thermonuclear branch, estimated the costs of the thermonuclear program over 11 years as approximately \$100 million, whereupon Hosmer declared, "CTR is either going to have to get an increasingly larger share of the basic-research budget or the budget is going to have to go up in the decade ahead. . . . I suppose there may be a combination of those things occurring. But I see an inescapable need to assess some lower-priority activities and eliminate them, both in the basic research and overall AEC programs. I know you sweated this out with the Budget Bureau, but it seems to me that something drastic is going to have to happen to allow for fast development of high-priority projects."

The tone of the committee as well as the overall funding picture for physics research was perhaps summed up by Rep. Chet Holifield (D-Cal.) who remarked, "I look on this increasing burden of operating expenditures in the high-energy physics devices with a great deal of concern. . . . Is the nation going to support these operations fulltime? It would seem to me that there may be emergency per-

iods, such as the Vietnam pressure on the budget right now. . . . But when other demands ease up and if there is a scientific need for experimentation, I don't see that we won't be willing to pay."

—BH

Wilson Discusses New Post As 200-GeV Lab Director

Robert R. Wilson, the new director of the 200-GeV laboratory at Weston, Ill., has told *PHYSICS TODAY* that he is going ahead with a reduced-scope design that could be expanded later to considerably higher intensity as well as energy. Wilson, who is directing final stages in construction of the 10-GeV electron synchrotron at Cornell University, said he expects to complete that job and take up his new post by next fall.

"Right now, I am ironing out pay scales and user machine time with the Atomic Energy Commission. I am also trying to find out who will come to Weston so as to avoid clashes of interest and personality. Of course we are also working out a design that will be appropriate for the Weston site."

Scheduling. "I hope we can have the design adaptation finished in a short time so we can go after our authorization next year. After that, I think a very fast schedule would enable the machine to be completed in five years."

High-energy brain drain. "There are lots of people who have expressed interest in coming." [Estimates of manpower are 395 physicists for a full-scope facility and 220 physicists for one of reduced scope, approximately 30% and 15%, respectively, of the particle physics community.] "They will of course, drain the manpower at other laboratories. But a lot of our work will be going on at Berkeley and thus fewer people will be needed at Weston. I also hope that we could use people at other places for some of our problems. At Brookhaven, for example, they've already designed a very good linac that would be sensible for our use. Or we could use the design of the linac for the Los Alamos meson factory. Thus by not designing our own injector, we could save a tremendous number of physicists."

Present plans. "Right now and for a considerable time, I think the only