

SELECTIVE SERVICE AND THE

THERE has been a progressive development of congressional intent and legislation, and of administrative procedures in regard to selective service and the military reserves toward more and more recognition of the importance of civilian science and technology. This stemmed originally from the clear fact that during World War II many civilian research teams were doing much too important work to be disturbed. With the continuation of the draft after the war it was realized that the inflow of competent men to the learned professions must not be constricted and consequently the student deferment plan was established, under which men of demonstrated high scholastic aptitude could, if the plan functioned as intended, continue their training clear up to the PhD.

A further clarification of congressional intent appeared in the amended legislation of 1955, since which time men who are "critically occupied" and who are engaged in "essential activities" are commonly selected for deferment, in contrast to the earlier practice under which the Selective Service System contended that

it could only decide *when* rather than *whether* individuals would serve.

The best course at present for a young man who has the scholastic ability and motivation for a learned profession lies *not* in early induction followed by years of time-consuming reserve activities, and *not* in commitment to the ROTC followed by a tour of active duty, but rather in the student deferment program (II-S) followed by occupational deferment (II-A). For those who pursue this course to the point of entering graduate school the following facts are pertinent and should be most carefully noted!

1. To qualify for Class II-S (student deferment), a registrant must stand in the upper quarter of the male graduates in his senior class, or, failing that, he must have passed the Selective Service College Qualification Test with a grade of 80 or better.
2. A registrant who fails to meet either of these requirements will be classified I-A (available for induction), and it is pointless to appeal this classification. If, however, a college graduate

who lacks the qualifications for a deferment is not called for induction immediately, he may enter graduate school and can count on completing a year of work by using the I-S classification. This automatically defers him until the end of the college year or, in special cases, until the end of the college semester. Reclassification as I-A at that time reopens right of appeal, and a II-S classification can be sought, provided the scholastic record of the registrant during his first graduate year is excellent. If the local board reconsiders the classification, the registrant may be placed in Class II-S or II-A. No deferment is valid for a period longer than a year. At the expiration of a II-S or II-A deferment, the local board is likely to reclassify the registrant in Class I-A unless the registrant, with supporting evidence from the institution in which he is studying or the company by which he is employed, applies for a continuation of the deferred classification prior to expiration or to local board action. In the case of graduate students, a request for continued deferment must be supported by Form 109.

Congress will reconsider the Draft

THE careers of trained and budding scientists are apt to be affected by what Congress does before June 30 about the expiring selective service and reserve forces legislation. What it does may also largely determine the future value of the professional services of scientists to the national security.

The present legislation, set up in 1955, has already had to be rather drastically "adapted" to situations very different from those contemplated by Congress in

the year it was enacted. The selective service manpower pool has risen sharply while the uniformed services have decreased to the point that currently only some 10 000 induction calls are issued each month. The universality of military training and service has gone. One's chance of bypassing military experience in the absence of war is pretty good. The reserve features of the legislation have also been vitiated, apparently for both financial and policy reasons. The trend is to use defense appropriations increasingly for the development of weapons technology and less for the maintenance of a readily fieldable reserve. Both within the Pentagon and elsewhere there is an increasingly growing feeling in favor

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denial of a II-S or II-A classification at this point automatically opens the case to appeal to the state board. No local board has the authority to deny an appeal.

Work for the Master's degree must be completed within two years of the date of receipt of the Bachelor's degree; and a maximum of three additional years—five in all—is allowed for the completion of all requirements for the PhD. But renewals of the II-S classification must be sought annually with supporting evidence from appropriate officials in the institution of learning that the registrant has maintained scholastic standards that will enable him to earn the PhD degree within the time limit specified.

The accompanying article, "Congress Reconsider the Draft", deals with possible further developments which may occur before June 1959 when the present legislation expires. If it is continued, it is hoped that amendments will be introduced to make it even more sure that the effective strength of learned professions such as physics will be built up.

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of well-trained, long-serving career forces. The cold war has at the same time become increasingly a competition of technological achievements waged more by civilians than by military personnel.

The issue before Congress may lie between a continuation of the present legislation interpreted ever more liberally and flexibly by Selective Service and Defense Department officials on the one hand and an attempt to codify a more realistic view of the present national security situation on the other. It is not likely that the draft would be dropped altogether because it is regarded as a necessary club to produce volunteers as well as inductees. Continuation of the present legis-

lation would be easier for Congress, but this course would go sour if administration of the Act did not continue to be liberal, understanding, and far-sighted. In this respect, General Hershey has set an example which those closest to the Washington scene best appreciate. Maintaining the status quo would unfortunately do nothing to assist local draft boards to gain a balanced view of the nonmilitary as well as the military necessities of the contest with the communist countries. The adoption of new realistic legislation would be much harder for Congress and would necessarily involve, if it were undertaken at all, a series of hearings in which scientists and other professional men would be called upon to testify. What might finally be done would depend on the strength and the degree of unity of the testimony and the extent of its support by the public press. Choice of the second alternative would not be made easier by the realization that the cold war situation is likely to go on changing. New and now unforeseen actions may have to be taken and conceivable national emergencies, widely varying in nature and degree, must be anticipated. Admittedly, new legislation in 1959 would again be outdated within several years, but not so much so as the legislation of 1955.

Congressmen are not likely to make any choice without a good deal of consideration and frequent consultation with the representatives of science and technology most readily available to them. The Scientific Manpower Commission, the Engineering Manpower Commission, and the Office of Scientific Personnel of the National Research Council have been preparing themselves for months to meet the expected demands. They have gathered pertinent background material about the workings of the present legislation as it affects the service of scientists and engineers to their country and they are taking steps to bring this, together with some tentative suggestions, to the attention of the professional people they represent. They want all the reactions and advice they can get. Several invited and open conferences have been held to this end.

WHAT, in fact, is the situation which now confronts the United States and the other western nations? In the last few years it has developed into a contest largely of technologies with the liberal traditions of free democracy as the stake. This contest might be won or lost without a single military encounter. It is therefore not enough to talk about national security or the defense of the western world or the safeguarding of freedom solely in terms of military preparedness. A high general level of popular education, an outstanding body of professional men in all learned fields, excellence in the arts, great industrial capacity with a consequent high standard of living, the international exchange of scholars, and the free distribution of uncensored information now stand right along side of military preparedness as the weapons of cold war. Indeed eminence in these respects contributes much that is essential to military strength.

In short, learning and teaching are essential to na-

tional preparedness. We must look primarily to "brain-power" for our salvation. In terms of manpower, we are outnumbered.

Among the learned professions, science and engineering are now most immediately strategic. Even military power is now no greater than the degree of technological development it has absorbed. Both in military and nonmilitary aspects of national security, science and its applications must be accorded the highest priority, not second even to actual military training and service. Any realistic projections of selective service and reserve legislation must take this into account. Laws, regulations or national attitudes which impede, retard, or interrupt the rapid training and active careers of professional scientists are not in the interest of national security. The percentage of the population which has the intellectual competence and motivation for professional work is no more than adequate for the jobs that are going to have to be done. It is recognized that it is the duty of all to serve their country and it is incumbent upon Congress and the Administration to see that the most effective use of professional service is made.

What happens now is short of such an ideal. For example there is little need for physicists, as such, in uniform in the armed services, although they are, of course, needed in the civilian laboratories connected with the services. In spite of this, physicists and physics graduate students continue to be occasionally drafted. Only some of these are sent through the short Critical Skills Program calling for three to six months training followed by screening to the Standby Reserve. The rest are, at best, assigned to the Scientific and Professional Personnel Program where there is really not much for them to do. Only the army has such a program. These two programs do not contribute much to the armed services and are little more than a co-operative gesture to the smooth working of the 1955 legislation as it affects individuals with critical skills. A large fraction of the most promising college students sign up for the ROTC programs only to have it turn out later that instead of serving the required tour of active duty they really ought to be going to graduate school or quickly getting started in their profession. The required tour is sometimes delayed but never cancelled. There is plentiful evidence that creative and significant research is done by many physicists during the early period of their professional lives. The loss of two or more of these productive years is costly not only to the individual but to science and to the nation itself.

The ROTC commitment is probably the most serious misassignment of scholarly men at present, involving as it does a large fraction of the selected, highly intelligent men in colleges and universities.

It is also a fact that deferment for advanced study is often reluctantly given—or withheld—by local boards. When it is withheld, appeal procedures are sometimes neglected or botched and reversals of the local board decision are made difficult in spite of a very cooperative attitude on the part of the Selective Service Sys-

tem. Currently some three or four difficult cases per week are brought to the attention of the Scientific Manpower Commission for help in getting selective service procedures to follow the intent of Congress in regard to occupational and student deferment under the 1955 legislation. Further, every case of deferment becomes a file which must be reviewed by the local board each year, often with dwindling appreciation if not increasing impatience, or even resentment. The chance of induction is often greater than for those who have no deferment record. As a result of this fact it has been said that the scientific and engineering professions are actually contributing disproportionately to the uniformed forces. The period of liability is also extended to the age of 35. Paradoxically, if the 1955 Act were just allowed to expire next June 30, those who had been deferred for occupational reasons and were between the ages of 26 and 35 would still be liable to induction although younger men in general would not.

The basic fact is that it is to military service that the attention of local boards is primarily and traditionally oriented. They understandably have a tendency to view any kind of deferment as a kind of escape from something which represents hardship, economic sacrifice, and danger. Despite this tendency they have, by and large, recognized that certain professions, including physics, are essential and this encourages the hope that with an altered legislative framework they would be quite capable of a broader view of service to the nation. They must increasingly be aware that in nuclear warfare a member of a disciplined, mobile, defended military unit is probably in a less dangerous situation than a civilian in an industry or defense laboratory in a large town.

SOME of those who have thought longest and hardest about these matters feel that now is the time to go all the way in recognizing the coequal necessity of military service and scientific or technological service for national security. Parenthetically, they do not exclude other fields which may have or attain strategic importance. If such an equality is recognized the foundation is laid for a whole structure of logically consequent procedures, some of which they suggest.

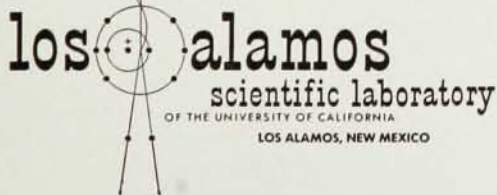
For example the Selective Service and Reserve Acts could be amended to provide alternate ways in which young men of 18½ to 26 could fulfill their service obligation to the nation—one in the military as at present, the other in carefully defined scientific and technological service. Participation in the latter would, of course, have to be restricted to young men with tested intellectual qualifications. It would be the duty of local draft boards to select (not defer) qualified men for admission at their option into this type of service. Within the scientific and technological service there should be available a second option either to pursue a privately financed educational program or to apply for participation in a government subsidized program analogous to the ROTC.

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Public approval and favorable draft board attitudes could only be expected if men in the new alternate service had imposed upon them obligations somewhat comparable to those imposed on men in the military service, the obligation being naturally greater in case subsidy is given. Those who paid for their own education should be required to utilize their specialties in some "essential activity" as defined in the Department of Commerce List of Essential Activities. These include teaching physics in high schools and colleges; basic and applied research of "direct concern to the national health, safety or interest"; work on laboratory instruments and apparatus; production of aircraft, ships, ordnance, electronics and communication equipment for military purposes; etc.

Those who accept a subsidy for their education in a program analogous to the ROTC would be enrolled in what might be called a Technical Training Corps (TTC). Upon completion of their training, they would be obliged to accept, if offered, employment with some government laboratory or agency requiring their type of professional competence with a minimum two-year assignment to an appropriate post at home or abroad. Thereafter, they, like the others in the service, would be members of a scientific and technological reserve for a period of years comparable to the period of reserve status of those in the military service. During this period they would have to be engaged in, or at least available if needed for, work in an essential activity.

It is not proposed by the authors of these suggestions that, aside from the required two-year tour of the subsidized TTC, there would be any fixed or regimented assignment. The selection of place and precise nature of job would be, as now, a matter of negotiation between men and prospective employers who have work to offer within the list of essential activities. Teaching physics is such an activity and indeed it could, if the national interest demanded, be ruled acceptable in lieu of the government service required of TTC graduates. However, a major point in favor of these proposals is that they would bring an annual inflow of young men to the laboratories and other scientific positions of the government and would provide a splendid group from which to recruit career personnel in the civil service.

The suggestions of the last several paragraphs are purposely not spelled out in detail nor are all the questions and difficulties they raise answered. They serve to present and illustrate a point of view and to indicate in what general directions its practical fulfillment might be likely to go. Quite different suggestions may well emerge and gain acceptance. There is much latitude for the thoughtful contributions of physicists to the development of such ideas—and they will be welcomed by the writer and others. If an attitude on the part of physicists crystallizes in time and is ably reflected in testimony to congressional committees it should help insure that the services of physicists to the government and to the national security will be most effectively employed in the future.