half ago, "everybody" knew that the nation had a shortage of PhD physicists. In a letter to PHYSICS TODAY published in February of 1969 I pointed out that in fact there had been for some time a surplus, and within a few months the conventional wisdom had discovered that there was indeed a "job crisis." There is of course a connection between my present letter and the previous one. If my present arguments are correct the employment situation will become much worse than the "expert" projections indicate, and it will last until the output of physicists becomes commensurate with their value. This brings me finally to the attitudes of physicists themselves. Generally we are a skeptical group, and it is therefore a little strange that wildly inflated claims for our importance could be made so frequently without challenge. After all, most of us could assess such claims easily enough by looking at the publications of our colleagues. Of course there is a question of economic interest, but I really do not believe that this is the determining factor. The real cause, it seems to me, is that most physicists seem utterly incapable of assessing the importance of their own work. They toil day after day and year after year and seem to exhaust themselves as readily on the most trivial and useless investigations as on the most fundamental discoveries or the most revolutionary inventions. Whatever the reason, I believe that a more realistic assessment of ourselves and of our relation to the larger world will prove, perhaps, to be necessary in the difficult days ahead.

WOLFGANG ZERNIK
RCA Laboratories
Princeton, N. J.

Science exploited by business?

The naive pro-business bias of PHYSICS TODAY's editorials is getting out of hand. Your comments on pollution and nuclear reactors are a particularly bizarre example of this trend—the public's suspicion and rejection of science and technology is blamed on those nasty scientists who criticize current practices of the scientific establishment. In this case it is the AEC's allowable radiation dose rate.

I would like you to know that I am suspicious of science and technology because I believe that our results are exploited by American corporations for profit with zero regard for the welfare of the people. In particular, I have zero confidence in the willingness or competence of any corporation to truly evaluate the safety of any product, let alone a nuclear reactor. And if it be said that the AEC is responsible and not private enterprise then the AEC will have to convince me that it is not, in the final analysis, dominated by the economic interests of America's corporate enterprises.

JOSEPH SCHWARTZ
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Staten Island, New York

Inaccurate cancer statistics

The August issue was most informative and thoroughly enjoyable, and I was especially pleased that you included an article ("Nuclear Physics in Medicine" by Gordon Brownell and Robert Shalek, page 32) dealing with physical medicine and particularly the disease cancer.

It grieves me, however, that the authors' statistics were so imprecise. They state (page 34) that one human in eight dies from cancer. The accurate figure is one in six. I don't think even physicists should be allowed this margin of error, plus or minus 0.25. I'm sure their other data are much closer to the mark.

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New York, N. Y.

Working for the DOD

I am disturbed, not by the editorial position of PHYSICS TODAY or the establishment-controlled council of the American Physical Society, but by the goals and tactics of some within the physics community. As an example consider the ideas expressed in the "article" by Jay Orear in the May issue of PHYSICS TODAY (page 9) and the contradiction that arises.

I do not know anyone in the physics community who is for war, poverty or pollution. The US Government has departments that deal with each of these problems with the goal of attaining peace (freedom), prosperity and a nonpolluted environment for ourselves and others. How these objectives are to be reached involves political decisions, and because of this there will be those who do not agree with or support the methods selected to obtain these objectives. Whereas one person may feel he is making a contribution to the problems of society by working on pollution problems, another person may desire to serve by doing DOD-supported research. After all, some people still feel that it is a privilege to serve their country whether in the military service, in DOD research, in the Peace Corp's, working on pollution problems, and so on. Of course each person should be able to make his own choice, and to my knowledge no one has been forced to work on DOD research. Also, why should a physics problem suddenly be off limits for academic physicists just because the results will be of interest to the DOD?

On the one hand we are to be forbidden, by a "Hippocratic oath," from helping one department of the government through our research projects, and on the other hand we are strongly urged by the same people who wrote the oath to help other departments. A contradiction? I think so.

We should not force people to work on projects they can not support nor should we forbid others from working on them if they so desire—each person should be free to make his own choice. If, as academic physicists, we choose to work on problems that have political overtones, we should be exceedingly careful not to influence students with our own personal political beliefs. Students, especially undergraduates, are very impressionable and our influence could be regarded as a misuse of our academic positions. Universities should not be used as a political force since this would make them a primary object of legislation, which would be the end of the "search-for-truth" education as we now know it. As it turns out however, it is not the DOD researchers who are misusing their academic influence, it is those who oppose it, for they are the ones indoctrinating students with their own personal political views.

I feel that open discussion of ideas is essential (faculty indoctrination of students is not open discussion), and for this reason I strongly recommend that PHYSICS TODAY continue its present policy of publishing letters, articles, and editorials of interest to physicists even though they contain controversial ideas.

DONALD L. HARDCASTLE
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As a Navy employee I make no apology for working for the defense of the United States. I object to the Ameri-

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