Letters

Education of American Teachers

No one could be better qualified to review Conant's *The Education of American Teachers* than President Robb of George Peabody College of Teachers. Conant's contribution has been to dissect the education business and counter the broad generalizations to which it is so subject from without and within. Up to a point, Robb's review reflects this contribution well. But when he flatly states that the biggest problem facing American schools is the spotty quality of school boards, he abandons the scope and spirit of the study and reverts to the party line.

His excuse for the statement is another broad generalization: that it is impossible for 32,891 independent school boards to carry out the Conant proposal. With equal impertinence, one could counter that it would also be impossible for 123,456 individual pros to administer it, or for 654,321 different teachers to benefit from it.

Spotty quality of school boards is indeed a problem, just as it is of pupils, teachers, pros, legislators, voters, or other groups of living things. Robb wonders then how desirable changes shall be brought about. Perhaps Conant's next study should dissect the policy-making bodies in the education business, including school boards. Had Robb made that point, I could only have wholeheartedly agreed.

ROBERT F. MARSCHNER
18427 Stewart Avenue,
Homewood, Illinois

Scientists, Lawyers, and Admirals

After rejecting assertions about scientists made by C. P. Snow and Robert M. Hutchins as dubious, D. S. Greenberg ["News and comment," *Science* **142,** 34 (4 Oct. 1963)] goes on to make the same error as they: urging the truth of a proposition on the basis of illustrative and even hypothetical evidence ("scores of thousands" of scientists). He states that "it is plain that, in terms of morality, competence, and devotion to the public interest, they are no better or worse as a group than lawyers, admirals," and so forth. To whom is it plain?

Actually Hutchins's rather cavalier comments raise a number of interesting and perhaps increasingly important questions that deserve systematic research. His disquisition on the *hubris* of the modern scientist suggests one significant social psychological problem, for example, concerning the diffusion of self-esteem from one occupational role to another. Because of their *esprit de corps,* are scientists really overconfident of their own abilities, particularly in areas where they have no training or knowledge? This is a researchable problem, perhaps beginning in the laboratory with lesser scientists and continuing in the field with greater ones. Greenberg's easy answer obscures this and other such issues, and perhaps illustrates Hutchins's thesis.

THOMAS J. SCHEFF
Department of Sociology-Anthropology,
University of California,
Santa Barbara

Anything can be elevated as a suitable subject for research, and Scheff is, of course, free to follow his inclinations, but I'd wager that after he runs the cards through the machine, he'll find "that, in terms of morality, competence, and devotion to the public interest, they [scientists] are no better or worse as a group than lawyers, admirals," and so forth. To whom is this plain? I think it is plain to anyone who has watched scientists perform in public affairs alongside lawyers, admirals, and so forth. If it would be useful to state this numerically, let it be done. But I think the talent required for this could be devoted to more useful purposes.—D.S.G.

Research Grants and Overhead

I cannot let the letter of F. R. Fosberg [*Science* **142,** 150 (1963)] pass unchallenged. The allowance of overhead costs for sponsored research is, I contend, essential to the continued vitality of American science and American universities. I understand full well the situation which leads Fosberg to dislike the practice: during the years 1948 through 1962, I held faculty appointments first at Washington University and then at Stanford University, and I estimate that nearly $200,000 was "siphoned off" from my research grants and contracts for overhead. This is certainly no record amount—I am sure that many other physicists during that period "lost" much more—but I very much disliked to "lose" that money from my research. In fact, when I had simultaneously a grant with a flat percentage of total expenditure charged to indirect costs, and a contract with overhead charged as a percentage of salaries only, I learned to minimize the overhead funds going to the university by charging as many of the salaries as possible to the grant and buying most of the consumable supplies with the contract.

But in my present position I have cognizance of all the budgets of a medium-sized university. And I can state flatly that, if it received no overhead allowances to meet the pro rata costs of the myriad of services, fringe benefits, bookkeeping transactions, and so on which go with each sponsored research expenditure, a private university such as Washington or Stanford would be forced to cut its research activities in science by a large factor, perhaps ten. The output of Ph.D.'s in science would drop by some similar factor, as would, of course, the contributions of the university to basic research.

The present overhead rates partly meet, but fall short of, pro rata indirect costs. Each growth in complexity of the science program calls for an expansion of the business office (bookkeepers, business machines, and so forth, to say nothing of office space) for which the university must rob its funds intended to support the teaching program as well as, for example, research scholarship in the hard-pressed humanities and arts.

The contention that administrators press faculty members to seek outside research support in order to rake in the overhead is ridiculous. Without any