

PHYSICS and SOCIETY

The NEWSLETTER of the FORUM on PHYSICS and SOCIETY

Published by the American Physical Society, 335 East 45 Street, New York, New York 10017

VOLUME 5, NUMBER 3

AUGUST, 1976

EMPLOYMENT GUIDELINES

Earl Callen, Forum Councillor

The July newsletter reported the antagonism of some of the APS council to guidelines for the professional employment of physicists. These guidelines (printed in full in the April 1976 Bulletin of the APS), proposed by Esther Conwell's Professional Concerns Committee after two years of study, have been adopted by more than 13 scientific societies including the IEEE, American Nuclear Society, and the American Institute of Chemical Engineers. The American Chemical Society has adopted more stringent guidelines with mechanisms for investigation of complaints, arbitrations, and enforcement, including blacklisting. Such stringent measures are not being recommended to the APS. Nevertheless, the mild guidelines being proposed face a rocky course through APS Council waters.

The worst employment problems arise in industry, and in small companies. Of the thirty members of Council only three are from industry. One is from Bell, one is Vice President of Xerox and one is Vice President of Bell Labs. Who speaks for the working man?

In a recent letter to Conwell, W.W. Havens APS Executive Secretary writes that the APS Executive Committee will recommend to the full Council that the guidelines not be adopted. The question may be on the agenda of the October meeting of the Council, and lacking screams of outrage from the membership, the Council will abide by the recommendation of its Executive Committee. It usually does.

There is plenty to scream about, but there are few people left to scream. Its like the walrus and the carpenter - the oysters are all gone. To a considerable extent industrial physicists have given up on the APS. If the Chemical Society, the IEEE, and a dozen other scientific societies have found room in their corporate hearts to say something on behalf of the welfare of their members, why cannot the APS?

(continued on page 2)

CALL FOR NOMINATIONS FOR 1977 FORUM AWARDS

Nominations are requested for the 1977 Leo Szilard Award and the 1977 Forum on Physics and Society Award. Both these awards recognize outstanding contributions in promoting public understanding of significant technological policy issues. The Szilard Award specifically honors the actions of a physicist, while the Forum Award honors the writings of an individual, who need not be a physicist. The awards will be presented at a special session at the 1977 APS meeting in Washington. Please send nominations to the chairman of the Forum Awards Committee, Dr. Martin Perl, Stanford Linear Accelerator Center, Stanford, California, 94305.

CONTENTS

Employment Guidelines	page 1
Ethical Codes for Scientists	page 4
Annual Report of the Forum Chairman	page 6

EMPLOYMENT GUIDELINES (continued from page 1)

It is not because of jeopardizing our tax exempt 501(c)3 status, or because of the danger of legal entanglements. APS legal Council Wm. Boylan has written to Havens that "no substantial liability of the Society to other persons is likely to grow out of this activity." The American Chemical Society, for all its vastly greater activism, has never been sued, and has not encountered difficulties with IRS over its 501(c)3 tax status.

Why then is the Executive Committee opposed to the guidelines? Particularly when it was the Council itself which created the Professional Concerns Committee to do just this kind of thing. The troubles started with a letter from the past-President Wolfgang Panofsky to current President Wm. Fowler. Panofsky writes that the APS has "stayed clear of being considered in any way an accrediting body and the process of employment guidelines comes close." He cites four specific objections to the guidelines--objections which are in my view very much a matter of interpretation, and which could easily be clarified, altered, or merely interpreted differently--as "examples as to the 'can of worms' contained in the document," and he recommends that, rather than "discuss in detail the nature of the guidelines, which would be both contentious and time consuming," the Council should instead reject guidelines out of hand. Panofsky concludes "I suggest that you discuss with Bill (ed. Havens) how to handle this matter at the next Executive Committee and Council Meeting so it can be looked at critically rather than routinely." That set the course. Rejection by the Executive Committee followed. And rejection by the Council will also follow, in the normal run of events. The only thing that will change that now will be if the membership of the Society light a fire under Council. That is possible. The leadership will respond to the will of the membership. What is needed is to make that will known.

(continued on page 3)

EMPLOYMENT GUIDELINES (continued from page 2)

There are several arguments for adoption. Were conditions better in industry, physicists would be more inclined to follow industrial careers. It is in the interest of college physics departments and their students to aid their industrial colleagues. Readers should make this argument to faculty and to department chairmen, urging them to write to Havens now expressing support for the guidelines.

Do not doubt that guidelines can have impact on college conditions as well. Tenure is under broad attack. Working conditions at the beleaguered schools will spill over to the others. Untenured faculty and staff are particularly in need of support.

And last of all, industrial physicists should be supported for their own sake. Most crucially, they must speak up on their own behalf. Readers should send copies of this piece to industrial acquaintances, urging them to spread the word in industry, particularly in the small companies.

Inevitably the argument will be made that we in the Forum are not representative of the APS but are merely an activist minority. (I suppose by definition anyone who speaks up is unrepresentative of the silent majority. Who speaks for the silent?) So it is important that the whole physics community, far beyond the Forum, get involved and say so.

Lets send them a message.

PHYSICS AND SOCIETY, the Newsletter of the Forum on Physics and Society of the American Physical Society is published for, and distributed free to, the members of the Forum. It presents news of the Forum and of the American Physical Society; and provides a medium for Forum members to exchange ideas. PHYSICS AND SOCIETY also presents articles, letters, and columns on the scientific and economic health of the physics community; on the relations of physics and the physics community to government and to society, and on the social responsibilities of

science. Space is preferentially given to those analyses and opinions which are less likely to be published in the established journals such as Physics Today and Science. Letters, short articles, suggestions for columns, and Forum news items should be sent to the Editor, Martin L. Perl, SIAC, Stanford, California, 94305

PHYSICS AND SOCIETY is also distributed free to Physics Libraries upon request. Such requests and requests for other information should be sent to M.L. Perl.

ETHICAL CODES FOR SCIENTISTS

Alvin Saperstein, Wayne State University

Recognizing the major impact (actual and potential) of science upon society, some scientists have urged that we could meet our responsibilities by accepting formal ethical codes such as the Hippocratic Oath of the physician. For example, a distinguished group of molecular biologists have suggested the cessation of certain types of cell-nucleus fusion experiments. Other biologists have objected. Often bodies outside of science seek to impose such codes; both the Federal Government and the State of Massachusetts have recently attempted to either ban or closely regulate research with fetal materials. Clearly, if there is to be a list of moral imperatives, most scientists would prefer self-imposed codes, feeling that outsider's codes are apt to be overly rigid and stifling to the fragile process of research.

It is questionable, however, how enforceable self-imposed codes can be. How would the American Physical Society "shun" war researchers, a requirement of a recently suggested code? Presumably, the Nazi concentration camp doctors, infamous for their perverse, brutal, human experimentation, had all formally subscribed to the Hippocratic Oath. So too had the American physicians who carried out the ethically obtuse syphilis "experiments" some years ago in the South, refusing treatment to afflicted men just to observe the final progress of the crippling disease, a progress well-known in literature from the times when effective treatment was not known.

A code is a basically negative, rigid structure. What is needed is a positive process, a continued interactive openness with the public in a society having a set of moral values. The public should be aware of, and invited to comment upon, what is going on inside research institutions.

Various mechanisms are possible, one being a local lay citizens'

(continued on page 5)

board (perhaps including the science writer for the local newspaper) attached to each department or institution funding or carrying out research. The conceptual structure is not too different from the lay corporate managers currently supervising most industrial research - the prime, positive difference would be that the citizens are local, thus subject to possible negative aspects of the conduct of the research and their interests would not be directly tied to the "success" of the specific laboratory. The need to explain the general background of the proposed research and how its conduct and results might impinge upon others to such a group of laymen is, admittedly, a challenge to the research scientist. The meeting of such a challenge should be an invigorating, clarifying stimulus to the researcher's own thinking and growth.

Public awareness of impending research is not likely to have any more of a negative influence upon the success of good science than such knowledge on the part of fellow professional scientists. There would be no sense of competition and getting the result first on the part of the public intervenors. There is a great deal of public support for the basic canons of the scientific ethics: universalism, communalism, disinterestedness, organized skepticism. The public expects a great deal from scientific research (perhaps much too much), has a great deal of respect for the research enterprise, and is very unlikely to attempt to hinder scientific progress. The requirement of interactive openness with the public is not equivalent to a veto on the part of the local public on the course of scientific progress. It is just the requirement that the individual researcher should be able to withstand public comment upon his goals and procedures. The only weapons of the little boy in the story "The Emperor's New Clothes" were his eyes and his wondering, audible, comment that the emperor was naked.

HIGHLIGHTS OF THE ANNUAL REPORT OF THE CHAIRMAN

(The following comments are abstracted from the Annual Report of the Chairman of the Forum on Physics and Society, Dr. Richard Lapidus, to the Executive Committee in January, 1976. Dr. Lapidus suggests a number of activities for Forum members. If you are interested in participating in any Forum Committee activity or in any other way, contact the 1976 Chairman, Dr. Lee Grodzins, Department of Physics, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139.)

The year 1975 was a year of transition for the Forum on Physics and Society. This transition is a reflection of changes which are taking place in the APS and the external American society as well as within the Forum itself. I believe that it will be important in the next year to redefine both the goals and the mode of operation of the Forum if we are to continue to function successfully and provide programs and activities to our own membership and the APS as a whole.

The problems which the Forum faces are due in part to our own past successes. The Forum was born in a period of ferment in American history. Physicists, as well as other professionals, sought means to have a significant voice in the actions of their professional societies. And many members saw the need to relate the scientific functions of the profession to the social obligations of the membership, both individually and collectively.

The massive economic problems facing the country have had a severe impact on the job market for physicists and government support of research. The APS and the Forum have felt these new pressures and already responded in a number of ways. I foresee greater movement in this direction in the future.

It is most fitting that the Forum Chairman for 1976 is Lee Grodzins. Lee has devoted himself to the manpower problems of the physics profession. Thus, the Forum under Lee's leadership will continue to remain the forefront of activities relating physics to society.

I served on a number of APS committees during the past year. Indirectly my role on these committees has involved Forum interests.

Congressional Fellowship Committee: The Congressional Fellowship program, which was instituted by Forum members, is now an established institution in the APS. In cooperation with the AAAS and other professional societies, the Congressional Fellowship Program has become an important component in the functioning of a number of Congressional House and Senatorial committees and the staffs of individual representatives and senators.

While this program has been accepted by the APS and been so successful, the Forum has lost its initial contact with it. I strongly recommend that the Forum maintain an active contact with the Congressional Fellows by asking them to participate in Forum programs and to use their talents in other ways, e.g. visits to various campuses. The APS travel budget allotted to the Fellows has not been used because they do not receive requests to use it in APS related activities! It is also important that the Forum membership participate in locating suitable candidates for the Congressional Fellowships. The formation of an active Forum Congressional Fellowship Liaison Committee should be a high priority item in 1976.

Nominating Committee: I served on the APS Nominating Committee this year. Through the efforts of members of the Forum and others in the Society, a dramatic change has taken place in the APS nominating procedure for virtually all positions including both elected and appointed ones. The APS now actively solicits self-nominations as well as any other nominations and a file of such interested persons is maintained by the APS.

Constitution and Bylaws Committee: This year the Constitution and Bylaws of the APS have been completely rewritten. This has been a massive effort which was carried out under the chairmanship of Dr. Vera Kistiakowsky.

(continued on page 7)

HIGHLIGHTS (continued from page 6)

Some of the features of note are an opening of the workings of the APS to the members, a democratization of many procedures, a formal commitment to programs which started on an ad hoc basis (e.g. "professional concerns") and an updating of the document itself so that it is more intelligible to the membership. The opportunities for participation which are formalized in this new document should encourage greater participation by more APS members in the future.

Within the Forum itself there were a number of activities during the past year.

Nominating Committee: Gloria Lubkin chaired a committee including Seymour Koenig, Martin Perl and Brian Schwartz who developed the slate for this year's new officers and Executive Committee members.

Awards Committee: The Forum Award has been renamed the Forum on Physics and Society Award. The winner in 1975 was the "News and Comment" Staff of Science Magazine. The 1975 winner of the Leo Szilard Award was Bernard Feld. These awards were presented in Washington, D. C. in April.

The 1976 Award Committee was chaired by Joel Primack and included Martin Blume, Max Dresden, David Inglis, and myself. The winners of the 1976 awards are Richard L. Garwin for the Leo Szilard Award and Herbert F. York for the Forum on Physics and Society Award.

The cost of the awards is presently a major fraction of the total income of the Forum. It is important that funds for the awards be obtained from other sources so that all the membership dues income may be used to support the Newsletter and other Forum activities.

Membership Committee: Roland Good and Dave Hafemeister did an excellent job of trying to enlarge the Forum membership. The country has been organized into districts and in turn into smaller regions. Hundreds of solicitation letters were sent to various people to assist the membership effort. Membership must be a top priority item in 1976. The Forum should have 4000 members. This will not only provide us with additional funds to support our programs, but more important, it will enable us to broaden our base and thereby obtain assistance from new members.

Newsletter: Martin Perl has edited the Newsletter for several years with almost no help. It is critical that the editorial responsibilities be widened to a committee of several persons. Early in 1975 the report of the Conference on Tradition and Change in Physics Graduate Education was published as a special Forum Newsletter. The extensive costs of printing and distributing this very large report were met largely with a grant from the APS Committee on Education, for which we are extremely grateful.

It has been suggested that the Newsletter enlarge its role and provide a vehicle for persons to publish brief writings on Physics and Society. The Newsletter has been retitled "Physics and Society", to some extent with a view toward a more permanent Journal of Physics and Society in the future. I support this idea. The Committee on a Journal of Physics and Society did not function this past year, but it may be able to do so if there is a person who is willing to take the Chair of such a Committee seriously. I would recommend that such a committee be composed of at least six committed persons and initially work with the Newsletter Committee.

Meeting Programming Committee: The Programming Committee is formally chaired by the Forum Vice-Chairman, but in practice Brian Schwartz has done most of the work for several years. We have had a number of meeting sessions which were very well attended. I believe that we should involve more people by making a working Committee which will generate session ideas and organize them.

International Programs: Bill Blanpied has assembled a group of Forum members interested in international programs. This committee should work with the APS as a whole on any programs of interest. I hope that the committee will continue to function in 1976. After the initial

(continued on page 8)

organizational efforts, it is important that specific actions come out - e.g. meeting programs, exchanges, etc. I see the primary work of this committee as providing input to the APS rather than generating exclusively Forum programs.

Summer Studies: Al Saperstein chaired this committee which generated a number of specific ideas for summer studies. These suggestions were communicated to the POPA Chairman. POPA has the responsibility for suggesting specific summer studies to the APS Council. I think it is most important that the Forum maintain an autonomous committee to generate ideas for summer studies so that this excellent APS program does not degenerate to an "in-group" type activity.

Arms Control Committee: Anne Cahn's Committee on Arms Control continues to generate interesting sessions at APS meetings in Washington and New York. These sessions have been very well attended.

Congressional Fellowship Committee: This Committee did not function, but as I indicated earlier I believe it should play an active role in seeking qualified nominees and making use of the expertise of the Fellows. I recommend that a suitable chairman be found for 1976.

Physicist and State Government Committee: This committee did not function formally although there were a large number of interested members. I think it is important that the focus for physics and government activity not be restricted to the national scene. I would like to see this committee develop programs in 1976, e.g. perhaps a modification of the Congressional Fellowship program.

In 1976 and the future I see the Forum functioning as a more closely integrated part of the APS. While I am hopeful that the Society will continue to adopt and "co-opt" many ideas generated by the Forum, we must remain active and interested in the fate of these ideas so that they do not gradually become routine and isolated from the membership of the Forum and the APS as a whole. I see the Forum membership growing in number and playing a significant role in dealing with problems of manpower, the interaction of physics and government, and the commitment of the APS to involvement with issues of physics and society through POPA and other means.

JOURNALS NEEDED

The Scientific Aid for Indochina Project is collecting scientific, technical, engineering and medical journals for Viet Nam. If you wish to donate such journals (runs are preferred) contact Prof. E. Cooperman, Physics Dept., California State Univ. at Fullerton, Fullerton, California 92634.

King
36' / roll
1 roll = 1.48 56

PHYSICS AND SOCIETY

The Newsletter of the
Forum on Physics and Society
of the
American Physical Society

120 x 8 1/2

August, 1976

Vol. 5, No. 3

The American Physical Society
335 East 45th Street
New York, New York 10017

120

5 yd roll 28"
= 15 ft or 1+ strips

EDWARD B MONTGOMERY
6720 GREENWICH LANE
DALI AS TX 75230

Non-Profit Org.
U. S. POSTAGE
PAID
New York, N. Y.
Permit No. 2937

area =
20 waste
factor
15
25