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Survey of Graduate Students

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The Institute

Survey of Graduate Students

WITH the cooperation of physics departments and graduate students in all parts of the United States, the American Institute of Physics has recently initiated a long-term study of the training of physicists at the graduate level. Existing statistical data indicate a discouragingly slow rise in the number of students receiving advanced degrees in physics relative both to the demand for trained physicists and to the total number of students enrolled for graduate study in physics. In order to gain a better understanding of the many factors bearing upon advanced training, the Institute decided earlier this year to conduct an annual questionnaire survey of all physics students engaged in graduate study. During the latter part of the spring semester some 8000 questionnaires for distribution to individual graduate students were sent to the department heads of 207 colleges and universities where graduate physics programs are offered. Thanks to the prompt action taken by the various departments, the questionnaires reached most of the students for whom they were intended, thus insuring a broad statistical sampling of those doing graduate work in the 1959–60 academic year. To date, well over half of the forms which were distributed have been filled out and returned to the Institute.

Preliminary scanning of the responses bears out the hope that the survey will provide information of interest to those concerned with physics manpower problems and with the advanced training of physicists. No over-all conclusions can be drawn until the collected responses have been evaluated in detail, and it is anticipated that it will be necesary to collect data over a period of several years before the full significance of the survey can become apparent. Results of the initial study will nevertheless be made publicly available, but in a manner that will preserve the anonymity of individual respondents and that will not permit comparison between identifiable institutions.

The questionnaire employed in the survey, in addition to calling for the usual assortment of vital statistics, asks for specific information about the graduate student's academic aims, the sources of his financial support, and the factors which he may feel to have delayed or disrupted his graduate study. In the case of the student who will not be returning to graduate school in the following year, the questionnaire asks why he has decided to end or interrupt his study, by whom he expects to be employed, and whether he will be involved in research, teaching, or some other occupation.

Among the results hoped to be gained from the survey are: (1) conclusions concerning the significance and effects of national fellowship programs, selective service, ROTC, etc.; (2) information about the prospective supply of physicists; and (3) a restricted mailing list for fellowship announcements, AIP Placement Service notices, and other literature likely to be of interest to physics graduate students.

The study is being conducted under the supervision of Ruth F. Bryans of the Institute's manpower projects, working in collaboration with former AIP Director Henry A. Barton, who is now serving as administrative consultant to the Institute.

Visiting Physicists

SINCE September 1957, when the Visiting Scientists Program in Physics was inaugurated as a joint activity of the American Association of Physics Teachers and the American Institute of Physics, arrangements have been made for visits by distinguished physicists to more than 340 colleges and universities and 550 secondary schools in the United States. Now in its fourth consecutive year, the 1960–61 program is expected to result in visits to approximately one hundred institutions of higher learning and some three hundred high schools. It is conducted with the support of the National Science Foundation.

Both the visiting physicists and the staff members of participating institutions have reported that the visitors' colloquium talks, public lectures, and informal conversations with students and teachers have led to beneficial exchanges of ideas. The program has also proved of value for the opportunities it has offered for high-school and college physics students to hear of new developments in research and to learn about career opportunities in physics.

The program was expanded last year to include visits by eight physicists from abroad. Each spent approximately one month in the United States, during which time he visited four or five colleges or universities giving lectures and talking with students and physics department staff members. There was some emphasis on the discussion of research problems in the course of these visits, but informal conversations about educational problems and comparisons of educational systems in the US and other countries were frequent. Those participating in the Visiting Foreign Scientists Program in Physics were H. Alfven of the Royal Technological Institute (Sweden), Norman Feather of the University of Edinburgh (Scotland), R. Fleischmann of the University of Erlangen and H. Schopper of Johannes Gutenberg University (Germany), Pierre Grivet of the University of Paris (France), Daniele Sette of the University of Messina (Italy), and Eric Mendoza of the University of Manchester and Denys Wilkinson of the Clarendon Laboratory (England). Arrangements are being made to bring other foreign