Machine Programming of Large Meetings To Be Tested

Better planning of large scientific meetings through the use of data-processing techniques may result from a recent National Science Foundation grant. The Federation of American Societies for Experimental Biology, Washington, D.C., will undertake to develop and test machine methods of scheduling the thousands of scientific papers read at large meetings of professional and academic societies. Resulting techniques are expected to greatly reduce the magnitude and complexity of the scheduling process. With the very large number of papers now submitted to most scientific meetings, and with the limited time available for programing, it has become increasingly difficult to build good sessions and to avoid conflicts of interest.

A trial of machine methods will be made in programing the federation's 1960 meeting, to be held 11-15 April in Chicago, Ill. Both the mechanical and the traditional systems will be used, and the two resulting programs will be compared and evaluated. At the 1959 meeting, 2383 10-minute papers were scheduled for 235 separate sessions held during a 5-day period.

Under the trial machine system, authors will be given coding sheets and will classify the subject matter of their papers. These papers will then be automatically grouped and assigned to sections. The subject classification assigned by authors and punched on cards may also serve as a subject index.

Industrial Laboratory Directory Being Prepared by NAS—NRC

The National Academy of Sciences-National Research Council reports that the eleventh edition of its directory, *Industrial Research Laboratories of the United States,* is now being compiled and will be published in mid-1960. The volume, published periodically since 1921, is expected to contain descriptions of approximately 6000 scientific and technological laboratories, many of them established since the publication of the previous edition in 1956.

More than 25,000 questionnaires are being mailed by the Academy-Research Council in search of appropriate data for inclusion in the volume. A cutoff date of 1 February 1960 has been set for their incorporation in the 11th edition; all responses arriving after that date will be held for a subsequent edition.

As in the past, the directory will list only nongovernment laboratories devoted to industrial research. For the purposes of this directory, however, "research" will include industrial development work on processes and products as well as fundamental and applied research. In addition, laboratories concerned primarily with routine testing and control, but conducting research activities, will be listed.

Each entry will contain the name and location of the laboratory, the types of research performed, the availability of services to others, and the names and number of professionally and technically trained personnel of the scientific research staff. The number of nonprofessional employees will also be given.

There is no charge for listing in the directory. Any research organization which has not received a questionnaire by 5 November but which wishes to be included in the new edition should inform Walter M. Whitlow, Editor, *Industrial Research Laboratories,* National Academy of Sciences-National Research Council, 2101 Constitution Ave., NW, Washington 25, D.C.

Diploma Mills Damage United States Prestige

Diploma mills calling themselves colleges or universities and conferring "quick-way" degrees, usually mail-order, are taking in an estimated $75 million annually and heavily damaging United States prestige abroad. With perhaps as many as 750,000 "students" annually, many of them in other countries, the bogus educational institutions are causing foreigners to question the integrity and quality of all American education. Many United States officials abroad have reported the problem and appealed for a solution.

In response, the American Council on Education, through its Committee on Education and International Affairs, has published *American Degree Mills,* a 100-page study of the problem by Robert H. Reid. Reid reports finding at least 200 degree mills operating in 37 states. He divides them into two main categories: (i) American institutions located in the United States and offering study by correspondence at home and abroad, which concentrate heavily on foreign nationals as prospective students (this is the category with which the study is chiefly concerned); and (ii) American-chartered or American-sponsored institutions located on foreign soil that offer residential or correspondence education to foreign nationals and to some Americans. A third, but less prevalent, type is the American institution located in the United States which offers "patently inadequate" residential study to foreign students who come here on student visas.

In considering possible solutions to the degree-mill problem, the report reviews the efforts of many agencies, public and private, to find an answer. A major factor, the report says, is the fact that:

"The United States unlike most other countries of the world, has no ministry of education. State laws chartering institutions of higher education are not uniform and are actually quite lax in controlling educational malpractice. Furthermore since there is no single yardstick for accreditation, this system is especially difficult to explain to nationals of other countries, who simply cannot appreciate that a country can have educational standards unless there is a federal agency controlling such matters."

Recommendations Offered

In its section on conclusions and recommendations the report declares that the solution demands better legal machinery than now exists, and proposes the following steps.

1) There is a basic need for concerted action by the states leading to the adoption of uniform legislation that sets minimum standards for the licensing and operation of all institutions of higher education—with special control of degree-granting privileges. Responsibility for administering such standards should be vested in the appropriate state educational authority. Such action should go beyond the passage of the law. It must provide sufficient staff and resources to ensure periodic review and continuous enforcement of these standards. The means for carrying out this first step exists. The Council of State Governments has indicated not only a keen interest in the problem but also a willingness to proceed immediately toward preparing and recommending uniform state legislation.