entific careers, is narrowly limited compared with the need for such trained individuals in the development of basic science. Thus, the proportionately limited amounts of funds now required, even with the most liberal estimates, are of small consequence in the economy that we are here concerned with.

"Our national interest requires full development of our potential scientific manpower resources and sufficient funds for this have not been available. Indeed, the present restriction in the National Science Foundation Act holding appropriations to a maximum of $15,000,000 in any year seriously limits the capacity of the Foundation to carry out effectively its statutory directives."

Research, Fellowships, and Manpower

Progress made during NSF's second year is covered in the report under the headings: Development of National Science Policy, Scientific Research Support, Scientific Manpower and Education, and Dissemination of Scientific Information.

Development of a national science policy was furthered in 1952 with the establishment of the Foundation's Program Analysis Office, which is designed to carry out statistical studies concerning the organization of federal agencies for research administration and with their budgets for research and development, the content of their research programs, and the impact of federal support of research upon industrial development and upon colleges and universities. Preliminary data from a survey of federal obligations for research and development at nonprofit institutions have already been released (see *Physics Today*, January 1953, p. 22). Such fact-gathering, the report emphasizes, is a needed preliminary step before the long-range goals of policy development can be reached.

During the year ending June 30, 1952, a total of $13.3 million in basic research proposals was received, of which $1.1 million (8 percent) was approved, $5.1 million (38 percent) was declined, withdrawn, or represented reductions in budgets of approved proposals, and $7.1 million (54 percent) was pending. "It is clear, however, that limited Foundation funds for research support have discouraged many competent investigators from submitting proposals," the report stated in connection with its estimate that new proposals submitted in 1953 would total more than in 1952.

About three thousand applications were received for graduate fellowships in the sciences for the academic year 1952–53, of which only 624 were granted the awards by NSF. The largest group of fellowships, 158, was awarded to graduates in the biological sciences, which compares with 140 in chemistry, 137 in physics, 75 in engineering, 62 in mathematics, 36 in the earth sciences, 7 in agriculture, 6 in astronomy, and 3 in anthropology.

The graduate fellowship program represents an immediate attack by the Foundation upon the shortage of scientists, but the report is careful to say that the granting of fellowships cannot solve the whole problem. Pointing out that the United States is currently falling behind on the production of new scientists at the rate of ten percent or more per year, the report emphasizes that the shortage stems from deep roots in our educational, social, and economic structure, and that its eventual correction will require long-range attack on these underlying problem areas.

The Foundation has also been carrying out studies on a number of the factors affecting the dissemination of scientific information, including surveys on the present status of journal publication, abstracting and translation services, and scientific libraries.

Statement on Visa Situation

Approved by Physical Society Council

The following statement was approved by the Council of the American Physical Society at its meeting in St. Louis, Missouri, on November 28, 1952.

"In the past few years, the progress of American physics has been impeded by United States visa and passport restrictions. A few American scientists have been denied passports and many distinguished foreign scientists have failed to receive United States visas even for short visits to attend scientific meetings. Other foreign scientists fail to come because their visas arrive too late after delays of many months or because they had been irritated by inappropriate questionnaires and inquisitorial personal interrogations. The international notoriety of these difficulties is now such that some international scientific meetings that originally were to be held in the United States are transferred to other countries.

"The personal exchange of ideas and the collaboration with foreign scientists are essential sources of information and ideas which cannot be replaced by written correspondence or by the study of foreign publications. The present restrictions of personal contacts are cutting deeply into this important source of our scientific production. This loss of scientific potential may even jeopardize our national security. Had similar regulations been in force prior to 1942, it is questionable if the United States would have developed radar or the atomic bomb during the last war.

"This loss to the United States is not compensated by any gain in the security of classified information, since the meetings from which the visitors are excluded are open scientific meetings on unrestricted subjects. The main reliance for the security of our technical secrets must necessarily be on the very strict guarding of the information by those who have access to it and not on such illusory and ineffective procedures as the exclusion of foreign visitors from open scientific meetings. Furthermore, the interrogations of foreign scientists are chiefly effective in excluding and humiliating scientists who believe in political and intellectual freedom rather than in detecting spies who would be less scrupulous about their answers.

"The Council of the American Physical Society is not questioning the propriety of excluding any person who wishes admission to this country with any idea of advancing communism here. However, the Council strongly urges a more realistic approach by the authorities to the problem of travel restrictions so that free scientific interchange will not be impeded."