
Science Legislation

Forum

This forum is arranged from material selected by the editorial staff from testimony given on 28 and 29 May before the Subcommittee on Public Health of the House of Representatives Interstate and Foreign Commerce Committee.

Science has been endeavoring to keep up to date with the current developments in the Congress related to science legislation. The equivalent of almost three regular issues has been devoted to this subject since 1 January.

Readers of *Science* were informed for the first time on 7 June that a bill proposing a National Science Foundation had been introduced into the House on 15 May and hearings before a subcommittee had been held on 28 and 29 May. Since this new bill, H.R. 6448, was based on the older Senate Magnuson Bill and not on the compromise Kilgore-Magnuson Bill, S. 1850, Watson Davis was caused to remark that the new bill seems to divide again those scientists who favor some kind of Federal support for research.

Why H.R. 6448 Is the Better Bill

Homer W. Smith
New York University

... Despite the preponderant testimony from scientists and those experienced in scientific affairs in favor of the Magnuson Bill, this bill remained in administrative disfavor. At the conclusion of the [November] hearings it was clear that the essential principles for the preservation of the freedom of science, so strongly urged by all of Dr. Bush's committees, were in danger of being completely submerged in favor of political control. There was strong opposition to scientists having anything more than a nominal voice in determining the policies of the Foundation. It was presumed that the top scientists of the country would give generously of their time to act on an advisory committee which had neither authority nor responsibility. It was clear, in short, that the philosophy of the Foundation was to be one appropriate to war mobilization and government direction, and not one appropriate to the peacetime development of science by experienced civilian scientists.

On 14 November a number of scientists met under the chairmanship of President Isaiah Bowman, of The Johns Hopkins University, to discuss the progress of this legislation. At that time it appeared that the essential principles for the preservation of the freedom of science and the protection of the National

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In the same issue Howard A. Meyerhoff pointed out that the introduction of the new bill was a definite threat to the establishment of a National Science Foundation during this session of Congress and implied that it might be necessary to go through the whole process of compromising the opposing factions all over again.

In order that our readers may be better informed with regard to the issues, the views of Dr. Homer Smith, speaking for the Committee Supporting the Bush report, and the Secretary of Commerce, Henry A. Wallace, are presented here, together with a statement from Dr. Meyerhoff outlining his position as executive secretary of the American Association for the Advancement of Science. The statements of Dr. Smith and Secretary Wallace are somewhat abbreviated. Dr. Meyerhoff's statement was written expressly for *Science*.

Why S. 1850 Is the Better Bill

Henry A. Wallace
Secretary of Commerce

... In my opinion S. 1850 combines the best features of S. 1285 and S. 1297 as well as a number of additional desirable provisions which grow out of the expert testimony presented at the hearings. S. 1850 is in accordance with the President's recommendations on science legislation; H.R. 6448 is in conflict with those recommendations on several important points.

I believe that the following provisions of H.R. 6448 are particularly undesirable:

(1) The bill provides that the powers and duties of the National Science Foundation shall be exercised by a part-time administrative board of nine members appointed by the President with the advice and consent of the Senate. This is substantially the same administrative arrangement as in the original Magnuson Bill in the Senate, S. 1285. A slight compromise has been made, however, by providing that the Director of the Foundation shall be appointed by the President from nomination by the Board, in place of the original provision for a Director appointed by the Board. Since all powers of the Foundation rest in the Board, this compromise is more apparent than real. As I stated in my testimony on the Senate Bills, I am strongly opposed in principle to turning over public functions and responsibilities, and especially the power to allocate public funds, to a part-time board of private citizens. I am in complete agreement with the President's position

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19 June General Scientific Organization; papers from Australia, South Africa, and India.

20 June Methods of improving the interchange of scientists throughout the Empire.

22 June Natural products of the Empire and the chemical industries that are or might be based on them.

24 June Agricultural science in the Empire; Mineral resources of the Empire.

25 June Measures to secure greater uniformity in physical standards of measurement and the use of units, terms, and symbols; Collection and interchange of scientific records and experimental material, including the safeguards that will have to be taken to minimize the risk involved in the distribution of plants, seeds, and animals.

27 June A scientific information service (for scientists).

28 June The etiology and control of infectious and transmissible diseases, particularly those which are insect-borne.

1 July Physiological and psychological factors affecting human life and work under tropical conditions and in industry; Modern methods of mapping and exploration by air, including the use of radio technique in ordnance survey.

3 July The science of nutrition.

4 July Land utilization and conservation, including forestry, soil erosion, irrigation, etc.

6 July Empire cooperation in the scientific field, with existing and projected international organizations.

8 July Dissemination of scientific news to the public generally.

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Science Foundation from political control or interference were in serious jeopardy. The immediate outcome of this meeting was the creation of the Committee Supporting the Bush Report. The first action of this Committee was to address an open letter (*Science*, 1945, **102**, 545) to President Truman, emphasizing in a constructive manner the principles emphasized in the Bush Report. This letter, dated 24 November, and signed by 43 scientists, was released with the prior consent of the President. It placed upon the President's desk an appeal to restore the initiative in science legislation to his own hands; it announced clear-cut principles for the information of legislators who must assess this legislation; and lastly, it served to inform scientists throughout the country that all was not well with the legislation and to acquaint them with the major issues involved.

This letter was subsequently opened to general endorsement and over 5,000 scientists of all ranks and from all branches of science added their names to the original endorsements and supported the position taken by the Committee. Shortly thereafter President Truman replied to Dr. Bowman in terms which made it clear that he favored the provisions of the Kilgore rather than the Magnuson Bill.

Since that time numerous conferences have been held among representatives of Dr. Bush's office, the Committee Supporting the Bush Report, and Senators Kilgore and Magnuson or members of their staffs. Conferences have also been held with other Senators directly or indirectly concerned with pending science legislation. In view of the indications in Washington, it appeared that the best hope for early enactment of science legislation lay in modifying the last draft of

the Kilgore Bill, S. 1720, along such lines as would make it acceptable to scientists generally.

Largely in consequence of a continued exchange of views, a new joint bill, S. 1850, was framed and sponsored by Senators Kilgore, Magnuson, Johnson, Pepper, Fulbright, Saltonstall, Thomas, and Ferguson, and introduced in the Senate on 21 February. This bill was reported to the floor by the Senate Military Affairs Committee on 19 March by a vote of 6 to 2, the opposing Senators contesting the patent sections, the inclusion of the social sciences, and the mandatory allocation of funds to land grant and tax-supported institutions. The opponents of this last provision call it with some warrant "the land grant pork barrel." Its effect is to throw substantial sums of money toward tax-supported institutions, some of which, as judged by graduate work, give evidence of little or no interest in or capacity for research, and to deprive privately supported institutions which have research merit of an equivalent amount. Every person who has considered this legislation is in favor not only of equitable geographical distribution but of using Federal funds to build up research in promising institutions where research is not well developed. But the automatic allocation of funds, even though their expenditure is not required, does not, in the opinion of many, seem the wisest method of accomplishing this end. Allocation should be left flexible and in the hands of the National Science Board.

Although S. 1850 follows the general pattern of "in-line" organization, with considerable power vested in a single administrator, the Foundation proposed therein is such that the best interests of science appear to be protected and scientists assured of reasonable authority and responsibility in policy-making and administrative decisions.

Consequently, a statement (*Science*, 1946, **103**, 558) concerning S. 1850 from the Committee Supporting the Bush Report, signed by 34 scientists who could quickly be reached, was circulated under date of 16 April to the 5,000-odd scientists who had signed or endorsed our letter to the President. In this statement it was pointed out that S. 1850 was a compromise bill; that many scientists doubted the wisdom of (a) including the social sciences in this legislation, (b) the provisions affecting the Government's patent policy, and (c) the arrangement for mandatory geographic distribution of funds to land grant colleges and tax-supported institutions; but that despite these undesirable features we regarded protracted delay or failure to enact this legislation as far more prejudicial to the public interest than the inclusion of the provisions objected to; and on these grounds we endorsed the bill and appealed to Congress as a whole to create a National Science Foundation by the enactment of S. 1850 before the end of the present session.

Briefly then, our position is that the Committee Supporting the Bush Report has from 14 November onwards endeavored to remove such undesirable features in the Kilgore Bill, S. 1720, as is possible and to amend it along other favorable lines. Throughout these negotiations we were committed, if feasible amendments were effected, to support this bill if and when it came to a vote in the Congress.

Only a few members of our Committee have seen the present bill, H.R. 6448. However, I have read it carefully and note that it conforms with the Magnuson Bill and incorporates certain constructive and acceptable changes indicated during the Senate hearings and in subsequent consultations. It complies with the position taken by the Committee Supporting the Bush Report, in their letter to President Truman of 24 November, in the following respects: the Director is subordinate in authority to the National Science Board; the social sciences, although not excluded, receive limited support until such a time as the Board may see fit to create a Division of Social Sciences; patent provisions do not modify the Government's patent policies in such a way as to discourage private and government-supported research; and there is no provision for the arbitrary geographic distribution of funds.

It is not clear to me whether or not it is possible for the Congress to create a National Science Foundation with an administrative pattern which does not meet with the approval of the President and of the Bureau of the Budget; whether it is possible for the Congress, against the wishes of the Administration, to create a National Science Foundation devoted solely to the interests of the natural sciences; or whether it is possible for the Congress to create this Foundation without disturbing revisions of our patent

laws. On the assumption that these things may be possible, it is my opinion that H.R. 6448 is superior to S. 1850, and I believe that the great majority of the 5,000 scientists who endorsed the Magnuson Bill will give it their wholehearted support.

It is imperative, however, that legislation incorporating one or the other of these bills, or the best features of both, should be enacted at this session, since the creation of a National Science Foundation to support fundamental scientific research and the training of scientists is, as we have said, of the utmost importance for the health, security, and welfare of the Nation.

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ment of many of the physical and natural sciences. The present lack of balance in the development of the physical and social sciences is one of the important reasons for including provision for the social sciences in the Science bill. The great advances in physical and chemical research and the advent of atomic energy may well mean that we are on the verge of a new industrial revolution and profound social and economic changes. New and challenging problems will confront the social sciences, the solution of which may greatly affect the welfare of the peoples of the world. I believe that you will find that the most eminent and the most thoughtful of the physical scientists in this country believe that the encouragement and development of the social sciences is even more important than further progress in the physical sciences. The further development of the social sciences may well determine whether the new and terrible forces which man has discovered through the natural and physical sciences become man's servant for enhancing his welfare or the terrible instruments for his destruction. I am in complete agreement with the President's recommendation that Federal financial support be extended to the social as well as to the natural sciences.

Before leaving this subject, I should like to refer to the objections which have been raised to the inclusion of the social sciences in this legislation. Much of that objection has come from persons who are neither natural nor social scientists and have little first-hand experience with the methods and the accomplishments of social science. As Secretary of Agriculture, Vice-President, and Secretary of Commerce, I have had a good opportunity to work with many natural and social scientists. *The sweeping assertion that social science is not science at all is nonsense.* The methods of science are equally applicable to natural and social phenomena, and the standards in many fields of social science research are just as rigid and exacting as those in the natural sciences. The claim that social science is concerned with vague and impractical problems can be made only by those unfamiliar with its accomplishments. Every member of this committee knows from