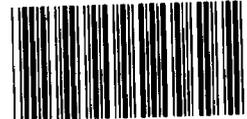


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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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Statement of  
Elmer B. Staats  
Comptroller General of the United States  
Before the  
Committee on Science and Technology *03502*  
House of Representatives  
on  
[ H.R. 7178, *g* The Research and Development  
Authorization Estimates Act ]



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Mr. Chairman and Members of the Committee:

Over the years we have strongly encouraged the Congress to think, debate, and act with a longer-term perspective and to focus more attention on major cross-cutting national policy areas such as science and technology. We have urged Congress and the executive branch to adopt a multiple year planning, authorization, and funding process for several different policy areas, among them Federal assistance to State and local governments and research and development. We believe that such a multiple year approach can and should be fully consistent with agency plans and budgets, and should draw heavily on them.

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Largely because of the efforts of this Committee, there has been progress in recent years toward a multi-year approach to research and development programs and activities. In this Committee's April 1979 hearings on the research and development budget, you stressed the need to move toward longer-term authorization and funding for research and development. Following those hearings, you took action on multi-year authorization by introducing the predecessor to H.R. 7178, H.R. 4490. We responded favorably to all of these efforts of the Committee, and provided detailed statements to that effect. Attachment I contains a list of the statements we made during the last session of Congress that relate to H.R. 7178. We will provide copies of the statements we made to other committees to your staff.

Our statements to this Committee on the research and development budget and H.R. 4490 addressed several topics which are also relevant to H.R. 7178:

- current congressional workload and timing problems with annual authorizations.
- current congressional and executive efforts to develop multi-year planning and budgetary processes.
- current congressional action to strengthen the oversight process.
- methods for improving the reporting on research and development.

Today I want to supplement those comments with some observations about the specific changes that would be made by H.R. 7178.

H.R. 7178 Responsibilities Represent Existing Science and Technology Organization and Functions

In our on-going work on the roles of the Office of Science and Technology Policy (OSTP), the Office of Management and Budget (OMB), and the National Science Foundation (NSF) in their support for research and development, we have found that

- OSTP puts a high priority on its role in the budgetary process;
- OMB depends upon, and has increased its use of the advice given by OSTP during various stages of budget formulation; and
- NSF provides support to both executive offices, especially in the areas of analysis and reporting.

The National Science and Technology Policy, Organization, and Priorities Act of 1976 established the need for a working relationship between OSTP and OMB by a general statement of function. This proposed bill clarifies that relationship and, in fact, amends the act to insure the reality of the relationship into the future. As such, the bill would alleviate the concern that the OSTP/OMB interface depends upon the attitude of each Administration and not on a formal

institutional arrangement which provides continuity in the research and development budget process. Therefore, the proposed amendments to Section 204 of P.L. 94-282 should directly contribute to a continuing effective OSTP role in the budget process.

It is important to acknowledge that Federal research and development programs and activities are based on pluralistic and decentralized decisionmaking within the context of broad national policies. Your Committee has recognized the potentially useful role for a council such as the Federal Coordinating Council for Science, Engineering and Technology established by executive order to support OSTP. Such a Council could assist OSTP and OMB in the budget process by

- linking Federal departments and agencies to the Executive Office of the President in support of research and development policymaking;
- providing interaction between and among the departments and agencies; and
- supporting the informational needs of OSTP and OMB in formulation and justification of the budget.

Finally, the strong and active OSTP/NSF relationship that has developed in recent years should further support the initiatives required by the executive branch to implement H.R. 7178.

Reporting Requirements are  
Balanced and Reasonable

On the surface, biennial reporting of funding estimates, for the budget year and for at least one additional year, along with supporting information, might appear to increase the workload of the executive branch. We believe, however, that the proposed bill will better organize and aggregate information to produce research and development budgeting with more efficiency. Existing budget requirements for agencies to estimate expenditures 2 years into the future should support the requirements of the bill. We think the bill mandates a change in approach in its amendments to section 204, and not additional information. Also, reducing the requirement for a science and technology outlook document (from every year to every 2 years) and abolishing the Science and Technology Annual Report, should decrease the overall reporting effort now called for under P.L. 94-282. In repealing the requirement for an annual report, the committee may want to consider retaining some of the specific reporting requirements of section 209 under its amendments to section 206 which establishes the biennial 4-Year Outlook.

We continue to believe the Director of should be responsible for the proposed 4-Year Outlook. Our reservations concerning the transfer of reporting responsibilities

from the Director of OSTP to the Director of NSF by Reorganization Plan No. 1 of 1977 are covered extensively in prior testimony. As one of several research and development agencies, NSF is constrained in dealing with crosscutting and interagency issues which involve evaluating programs or policies of other agencies. In our view, OSTP is the logical office to speak for the Administration's strategy and priorities regardless of who actually prepares the report.

Likewise, we support H.R. 7178's proposed amendment of section 3 of the National Science Foundation Act of 1950 (P.L. 81-507). The purpose of the section is to require the reporting of information on research and development functional categories comparable to the functional categories used in the President's budget. Finally, we agree that it is very desirable for the Congress, as well as the larger research and development community, to be kept informed about the impact of inflation on the conduct of federally supported research and development. Although this task will be difficult, it is still reasonable to expect that the problem be investigated and reported on fully.

The framework of the proposed 4-Year Outlook should satisfy the need for a national report on science and technology, but many of the information requirements of the current annual report will still be needed for the legislative process. For

this reason, I suggest some of the specific reporting requirements, such as section 209(a)(2), (6), and (7) be moved to Section 206(a) of the Act. This would retain congressional mandates for information on the impact of research and development on the economy and society, the status of U. S. science and technology resources, and the "recommendation for legislation" subsection which conveys the Congress' willingness to work with the executive branch to resolve national problems through the development of science and technology programs and policies.

When fully implemented, the types of reporting requirements being considered by your Committee, should provide Congress with a comprehensive set of documents that fulfills its need for biennial authorizations and appropriations, as well as continuous oversight over research and development and science and technology in general. The sum total of the reporting requirements establishes a presentation to the Congress by the executive branch covering the overall Federal research and development effort (which this committee and the GAO have supported for many years).

H.R. 7178 addresses many of my earlier concerns that the present budget does not have enough data and analysis to compare similar or related activities in different agencies, or sufficient rationale for decisions made concerning changes in research and development priorities. The reporting procedures

specified by the proposed bill go a long way toward providing the information needed to meet these objectives.

Some Considerations in Implementing Reporting Requirements

Careful consideration of the form and timing of budgetary support information can improve the quality of the data available to the committee and lessen the difficulties encountered by the executive branch in its preparation. While it is important to look at these issues in drafting a research and development authorization estimates act, many procedures will have to be worked out and revised as the act is implemented. Passage of H.R. 7178, or a similar bill, needs to be seen as the next step in a longer term effort to strengthen the budgetary information available to the Congress about research and development.

We believe that two keys to providing Congress with more useful information without excessive burdens on the executive branch will be (1) use of a generally agreed upon inventory of R&D programs by the Congress and the Federal agencies, and (2) earlier agreement between the committees and the executive on the questions to be answered by the budget justifications. I would like to discuss each of these subjects individually.

We have been working closely with your committee and other committees and the executive agencies to develop an inventory of Federal programs or reporting "entities" that

can be used in oversight and the budget process. We are interested in achieving greater consistency in reporting among the agencies and by the same agency from year to year. Current budget procedures use a diverse range of budget structures that are hard to compare and analyze.

Better comparability among budget reports requires the use of the same or comparable reporting "entities." The entities are the units which make up the most detailed level of presentation of information in reports. These are variously referred to as activities, programs, or program elements by different agencies. They are the bricks from which the budget is built. Without more comparability among or a means for relating these entities, it is difficult to compare similar programs in different agencies or follow the changes made in different phases of the budget process.

For example, both the Environmental Protection Agency and the Department of Energy conduct substantial research on the environmental aspects of industrial production methods. The Environmental Protection Agency arranges its efforts according to the type of pollution--air, water, solid waste, and radiation. In contrast, the Department of Energy manages its efforts according to the form of energy used--nuclear, coal, hydroelectric, and energy conservation. Because there is no established means for identifying such similar activities within the major programs of the two agencies, it is very difficult to assemble comparable information on research

directed toward environmental effects of industrial production methods.

A few years ago, we reported the need for a Government-wide budget classification structure for research and development to overcome difficulties in comparing programs between agencies. Since that time, OMB's development of the functional classification systems has eased the problems of comparison somewhat, but difficulties still remain. If a bill like H.R. 7178 is passed, we would be very willing to work with the committee and its staff to make the research and development budgets of different agencies more comparable.

In addition, in our report on streamlining zero-base budgeting, we pointed out that there is a need to unify or link program and activity designations used in zero-base budgeting with other designations used in the President's budget, by authorizing committees, and by appropriations committees. Better linkages should create the consistency between data that will permit Congress to fully use information available in the agencies, improve management control, and reduce the time needed to prepare budget documents.

Good management of the time available for preparing budget justifications is another way to improve information quality while reducing the budget preparation workload. As I noted in testimony last year, much useful information on research and development is not available until after the most critical phases of the congressional budget process

are finished. H.R. 7178 would remedy this situation by well defined reporting requirements carefully geared to the timing of the budget process.

Information must be ready to go forward to the Congress with the budget, so it is very important to begin preparing the material as soon as possible. Committees can strengthen the budget justification material they receive if they can develop the issues and questions they want covered and transmit them to the executive branch. By identifying their information needs well in advance of the final budget preparation process, they can make it more feasible for the executive to conduct relatively long-term studies and use their analysis staffs more flexibly and effectively. There is also the opportunity to use other sources, such as our office, to perform studies that can be used during the authorization process.

### Conclusion

In closing, I want to emphasize that the improvements made in the analysis and decisionmaking process for research and development by this bill are an important next step toward multi-year planning, authorization and funding. Once they are implemented, the Congress should give serious consideration to funding many programs and activities for 2 or more years. My staff will be most willing to assist the Committee and its staff in implementing a research and development authorization estimates act.

That concludes my prepared remarks; we would be pleased to answer any questions the Committee may have.

GAO STATEMENTS TO CONGRESSIONAL COMMITTEES  
RELATING TO CONGRESSIONAL AUTHORIZATION  
AND OVERSIGHT DURING 1979

STATEMENTS BY THE  
COMPTROLLER GENERAL  
OF THE UNITED STATES

Oversight Reform Proposals

Statement on H.R. 5858, the Sunset Review Act of 1979, to the Committee on Rules, U.S. House of Representatives, November 29, 1979.

Statement on congressional oversight reform legislation, to the Committee on Governmental Affairs, U.S. Senate, July 12, 1979.

Statement on H.R. 2 and H.R. 65, congressional oversight reform legislation, to the Subcommittee on the Legislative Process, Committee on Rules, U.S. House of Representatives, May 23, 1979.

Related Matters

Statement on assuring program accountability, to the Subcommittee on Rules of the House, Committee on Rules, U.S. House of Representatives, November 15, 1979.

Statement reform of Federal Regulation Act of 1979 (S. 262) and the Regulation Reform Act of 1979 (S. 755) to the Committee on Governmental Affairs, U.S. Senate, May 23, 1979.

Statement concerning GAO report on the problems involved with grant auditing, to the Subcommittee on Legislation and National Security, Committee on Government Operations, U.S. House of Representatives, July 30, 1979.

Statement on the Federal research and development budget, to the Committee on Science and Technology, U.S. House of Representatives, April 5, 1979.

Statement on opportunities to achieve savings through legislative action, to the Task Force on Legislative Savings, Committee on the Budget, U.S. House of Representatives, July 24, 1979.

Statement on GAO efforts relates to fraud, abuse, and mismanagement in Federal programs to the Committee on the Budget, U.S. Senate, March 15, 1979.

Statement on the Federal budget process, to the Budget Process Task Force, Committee on the Budget, U.S. House of Representatives, December 11, 1979.

Statement on S. 878, The Federal Assistance Reform Act, and S. 904, the Federal Assistance Reform and Small Community Act of 1979, to the Subcommittee on Intergovernmental Relations, Committee on Governmental Affairs, U.S. Senate, October 3, 1979.

STATEMENTS BY THE  
DIRECTOR, PROGRAM  
ANALYSIS DIVISION, GAO

Oversight Reform Proposals

Statement on S. 1304, The Legislative Oversight Act of 1979, to the Committee on Governmental Affairs, U.S. Senate, September 13, 1979.

Related Matters

Statement on S. 445 and Title V. of S. 2, regulatory sunset proposals, to the Committee on Governmental Affairs, U.S. Senate, June 15, 1979.

STATEMENT BY THE  
DEPUTY DIRECTOR, PROGRAM  
ANALYSIS DIVISION, GAO

Statement on the Regulation Reform Act of 1979 (H.R. 3263) before the Subcommittee on Administrative Law and Government Relations, Committee on the Judiciary, U.S. House of Representatives, November 29, 1979.