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NSF ROUNDUP

House Passes One-Year Authorization Bill

On June 3, by a vote of 408-3, the House of Representatives passed the FY 1988 authorization bill for the National Science Foundation (NSF). The bill, which authorizes NSF at the President's requested budget level of $1.893 billion, differs considerably in a number of aspects from the version passed by the Senate Labor and Human Resources Committee the same day (see following story). Support for the bill was bipartisan and the brief debate reflected the success of NSF Director Erich Bloch's campaign to tie basic scientific research to the economic competitiveness issue.

Labor Committee Approves Five-Year NSF Authorization

On June 2 the Senate Labor and Human Resources Committee, chaired by Sen. Edward Kennedy (D-MA), marked up a five-year authorization bill for the National Science Foundation (NSF). The bill funds the Foundation at the President's request of $1.893 billion for FY 1988, $2.158 billion for FY 1989, $2.474 billion for FY 1990, and "such sums as may be necessary" in FY 1991 and FY 1992.
The bill includes the requested $297 million for the Biological, Behavioral, and Social Sciences (BBS) Directorate. However, the Committee added $10 million to the $115 million request for the Science and Engineering Education Directorate (SEE) to be transferred from the research directorates. Unlike the House, which transferred $35 million to SEE and designated specifically where it should come from (e.g. $3 million from BBS), the Senate Committee left it up to the Director to decide how the reductions in the research directorates would occur.

The Senate Committee bill does not include the provisions of the House bill (see Update, April 10 and May 22, 1987) directing NSF to establish a science and technology center to study information technologies relevant to instruction for two-year colleges. Nor does it include language allocating 50% of all funds for new Engineering Research Centers designated in FY 1988 to be devoted to manufacturing engineering. It also does not include language directing NSF to conduct a study of Soviet penetration of American basic research.

Sen. Christopher Dodd (D-CT) introduced, and the Committee accepted, an amendment to revitalize university research facilities. NSF is charged with carrying out a laboratory modernization program through awards for the "repair, renovation, or replacement (as appropriate) of such institutions' obsolete laboratories and other research facilities." The awards will be made "on the basis of merit after a comprehensive review using established Foundation procedures." The funds must be matched on a 50-50 basis by non-federal sources. There is also a 15% set-aside for universities and colleges that "received less than $10 million in Federal funds for research and development...in each of the two preceding fiscal years," as well as a 10% set-aside for institutions "serving a substantial number of minority and disadvantaged undergraduate and graduate students." The authorized amounts for this program are $47 million in FY 1989 and $95 million in FY 1990, and such sums as may be necessary in FY 1990, 1991, and 1992. The Director shall use FY 1988 to plan the implementation of this program. Similar legislation for revitalizing research facilities has been introduced as a separate measure by Rep. Robert Roe (D-NJ), Chairman of the House Science, Space and Technology Committee. It will be interesting to see if the House accepts the Dodd amendment during conference committee deliberations on the NSF authorization.

Commerce Subcommittee Holds Hearings

The Senate bill now goes to the Senate Commerce, Science and Transportation Committee, chaired by Sen. Ernest Hollings (D-SC), which, under a shared jurisdiction agreement, can propose amendments to all parts of the bill except the Science Education provisions. On May 28, the Science, Technology, and Space Subcommittee of the Commerce Committee held its hearing on the Foundation's budget. Sen. John Kerry (D-MA) chaired the hearing in the absence of Subcommittee Chairman Sen. Donald Riegle (D-MI).

Kerry's opening remarks indicated he accepted the importance of scientific research and development as part of increasing the nation's ability to compete. This was strongly reiterated by Bloch in his remarks. Kerry was, however, unsure as to how the astronomy and anthropology programs at NSF contributed directly to U.S.
economic competitiveness. Director Bloch responded by discussing the astronomy program and the need to generate scientific knowledge that could be transferred to the development of economically competitive products.

Sen. Jeff Bingaman (D-NM) testified in support of the President's requested 17% increase for the Foundation and argued for the acceptance of the recommendations of the Senate Democratic Policy Committee's Working Group on Economic Competitiveness, which he chaired. Among its proposals for NSF are a call for additional graduate fellowships, for a university facilities fund, and for more engineering research centers.

Robert Rosenzweig, president of the Association of American Universities (AAU), cautioned the Subcommittee to be wary of organizing science totally around national goals, e.g. economic competitiveness. He noted the scientific enterprise is "much more delicate" and the genius of individual investigator-initiated research needs continual support.

But, a Word of Caution...

All this good news of support for NSF should be tempered by the upcoming markup by the House HUD-Independent Agencies Appropriations Subcommittee of the NSF appropriations bill next week. The Subcommittee will use the House Budget Committee's recommendations for the Science Function, which will not leave much room for supporting the large increase for the Foundation. Stay tuned!

HOUSE BILL ALTERS CENTER FOR EDUCATION STATISTICS

On May 21, the House of Representatives approved the School Improvement Act of 1987 (H.R. 5) by a vote of 401-1. Among its many provisions was one to alter the structure and function of the Center for Education Statistics (CES).

Less than two years after its last restructuring by the Department of Education, and less than a year after a National Academy of Sciences report criticizing its functioning, CES will be altered so that it will more closely resemble the Bureau of Labor Statistics and other executive branch statistical agencies. The changes, which were championed by Rep. Pete Visclosky (D-IN), include: making the Center director a Commissioner appointed by the president with a 4 year term non-concurrent with the presidential term; providing the first national education indicator (a national dropout/retention rate) to be presented to Congress on an annual basis; developing a system to gather education data from states using a common set of definitions and parameters; mandating three periodic surveys -- a financial aid study (every three years), a decennial census of school districts, and a national longitudinal survey of educational progress (every two years). It also changes the CES back to the National Center for Education Statistics.

The bill authorizes $26 million for FY 1988, $5 million above the President's request for CES. The Senate is still in the hearings stage of reauthorizing the elementary and secondary education programs, so the fate of CES (or NCES) will not be determined for some time.

6/5/87
From time to time the Update publishes articles aimed at providing an interpretive, in-depth look at certain federal agencies or programs of particular significance for the social and behavioral sciences. In this issue, we discuss an aspect of a somewhat unique agency in the legislative branch, the U.S. General Accounting Office, which has the responsibility for performing evaluations and analyses of federal programs.

The U.S. General Accounting Office (GAO) is one of the support arms of the Congress. One of its major functions, particularly through its Program Evaluation and Methodology Division (PEMD), is to provide nonpartisan, objective evaluation of federal programs and legislative impacts. The PEMD is staffed with well-trained professionals, including many social science PhDs with experience in academic life, government service, and the private sector. Inevitably, PEMD is asked -- normally by congressional offices -- to do studies across a very wide range of topics and areas, using methodologies that are often ad hoc. Individual PEMD studies are often disputed or challenged by those involved with the object of the study. Generally, however, PEMD is regarded as doing a difficult job as well as or better than can be expected.

The PEMD approach is to translate the specific questions about federal programs or activities that are put to it by Congress into researchable evaluation questions. Thus, it does not try to give a complete, well-rounded assessment of a field that would satisfy all those interested in particular areas. The Office of Technology Assessment, another congressional support agency, does state-of-the-art feasibility or projection studies in technical areas. Nor does PEMD do documentary studies or comprehensive scientific literature reviews; those are done by a third agency, the Congressional Research Service. PEMD's approach is, wherever possible, to collect its own data, by using administrative records, research-based statistics, observation and interviews in the field, or by analyzing the 'fit' between the nature of an actual program and its legislative intent.

Two recent GAO studies that have received considerable publicity show the PEMD dealing with complex, inherently subjective, issues. Each study relied to some degree on taking into account expert opinion from inside the community under study. In a recent report, Cancer Patient Survival: What Progress Has Been Made (GAO/PEMD-87-13), PEMD had to assess factors such as 'quality of survival' in cancer patients; varying approaches to screening, diagnosis, and the clinical management of patients; and subjective judgments by physicians of the definition, onset, and cure of cancer. For example, a survival rate for cancer may seem a clear-cut outcome measure; but the use of finer-mesh, earlier, detection methods (e.g., for early cancer or precancerous conditions) may tend not only to increase the measured incidence of disease but also improve the survival statistics. (In the latter case, even without any effective treatment, a patient will live longer, by definition, with earlier rather than later diagnosis.) To try to evaluate such factors as clinical practice and the definition of 'cases,' PEMD staff entered into a continuous dialog with cancer experts, in order to help substantiate GAO's conclusions in a highly technical area. In general, the study concluded that real progress had been made in recent years, especially in certain cancers, but that much of the reported progress was in some sense artifactual. The National Cancer Institute objected to GAO's
conclusions (see stories in the New York Times, April 16, 1987 and Science, April 24, 1987) partly on substantive grounds and partly because, the Institute claimed, the report might have negative consequences in terms of public attitudes or compliance with therapeutic regimens. Critics had to concede, however, that the GAO had drawn on the technical literature (which contains much controversy on these points), and had enlisted the participation of experts in the field. In an area of technical dispute, GAO took account of internal complexity -- something which evaluation research sometimes is charged with failing to do.

In other recent studies, GAO has also been led by the nature of the problem not to do direct outcome or program evaluation per se, but an assessment of the credibility or soundness of other evaluations -- done by many evaluators over considerable periods of time, in different circumstances and for different reasons -- for example, of food supplements and nutritional education for mothers and children (GAO/PEMD-84-4) or programs intended to prevent unwanted teenage pregnancy (GAO/PEMD-86-16BR). These have been, in essence, a kind of meta-evaluation.

In one recent case, in the especially contentious field of bilingual education, PEMD moved even more markedly toward an approach involving a panel of experts, or best scientific opinion. PEMD was asked by the House Committee on Education and Labor to assess the validity of certain statements by officials of the Department of Education concerning the efficacy of bilingual instruction. As stated in the recent PEMD report, "To support their policy position that a requirement of native-language teaching be dropped from the current Bilingual Education Act, department officials have claimed that, overall, the research in the area is inconclusive."

Thus, in this case, GAO was not asked to do an independent new outcome or impact study in the field, but to address the issue of what the research evidence really shows. Many experts see pervasive problems in the evaluation of bilingual education: there have been a number of different models, varying degrees of program intensity, wide disparity in context and locales, gaps between official descriptions and the reality of programs delivered, and fundamental disagreement about what may constitute the proper goals for bilingual instruction. Furthermore, some researchers themselves believe that much of the research and many of the evaluations in this field have been partial (in the double sense of incomplete or biased). PEMD's task was to assess the correspondence between research knowledge on bilingual education and the Department's characterization of that knowledge. GAO's method involved locating a number of extensive high-quality reviews of the literature, and asking a balanced panel of experts to judge whether the Department's version of 'what research shows' was, on balance, fair. The experts, primarily academic, included educational researchers, linguists, and methodologists.

According to the PEMD report, "only 2 of the 10 experts agree with the department that there is insufficient evidence to support the law's requirement of the use of native language to reach the objective of learning English...7 of the 10 believe that the department is incorrect in characterizing the evidence as showing the promise of teaching methods that do not use native languages... Few agree with the department's general interpretation that evidence in this field is too ambiguous to permit conclusions."
Note that the panel was not asked whether bilingual education 'works.' It was, instead, asked whether research was so ambiguous that the specific requirements of the current law regarding native-language use were unsupported. The panelists rejected the Department's claim that research was ambiguous, concluding instead that the evidence was consistent with the law. Within this general finding, however, there was a minority view, clearly set out in the GAO report (Bilingual Education: A New Look at the Research Evidence, GAO/PEMD-87-12BR).

The recent PEMD study may, of course, be questioned. Other reviews of the literature might have yielded a different picture. Other panelists might have viewed that picture differently. But the GAO's expert-opinion approach, while obviously not restricted to areas of social science inquiry, may help bring some clarity and reduction of rancor to fields where traditional program evaluation is not possible, and where the interpretation of bodies of research is itself open to dispute.

BUREAU OF JUSTICE STATISTICS RELEASES ANNUAL REPORT

The annual report of the Bureau of Justice Statistics (BJS) of the U.S. Department of Justice is now available free of charge. The report presents national data and methodological summaries organized by key issues (such as "sentencing" and "victims") facing criminal justice policymakers. The report also describes BJS services, including new data collection initiatives and state agencies collecting and disseminating criminal justice data. Another noteworthy BJS service described in the report is the Justice Statistics Clearinghouse, a toll-free information line for obtaining statistical information. The Clearinghouse can be reached at 800/732-3277 (residents of Maryland and the Washington, DC metropolitan area should dial 301/251-5500).

Copies of the annual report can be obtained through the Clearinghouse or by writing to the National Criminal Justice Reference Service (NCJRS), Box 6000, Rockville, MD 20850. Please cite the report's number, NCJ-100182, when ordering.

SRCD POSTGRADUATE SCIENCE FELLOWSHIPS

The Society for Research in Child Development (SRCD), a COSSA Affiliate, sponsors a Congressional Fellowship Program open to scientists and professionals with interests in child development and public policy who have completed the doctoral degree. The next fellowship year begins September 1, 1988; the application deadline is November 9, 1987. Applications are invited from anyone meeting the above qualifications interested in spending one year as a member of a congressional staff. The initial three weeks of the program constitute a training period during which fellows meet with congressional staff members and obtain assignments to a staff working on issues related to the fellows' interests. The Society particularly encourages mid-career applicants but stresses that the program is open to any qualified individual. For further information, please contact Dr. Jeanette Goodstein, Director, Washington Liaison Office, Society for Research in Child Development, 100 North Carolina Avenue SE, Suite 1, Washington, DC 20003 (202/543-9582).
COSSA provides this information as a service, and encourages readers to contact the agency rather than COSSA for more information. A comprehensive list of federal funding sources is included in COSSA's Guide to Federal Funding for Social Scientists.

Office of Research, Statistics, and International Policy (Social Security Administration)

The Office of Research, Statistics, and International Policy (ORSIP) is responsible for providing information on the effects of Social Security Administration (SSA) programs and the interactions among these programs, other tax and income transfer programs, and economic, social, and demographic forces. ORSIP responsibilities are categorized in four functional areas: program statistics, policy research, legislative impact analysis, and technical assistance to others. Extramural funding is generally in the area of policy research.

The SSA has recently published a solicitation for projects for FY 1987 funding. Three priority research areas have been designated:

(1) retirement behavior (the relationship between health, ability to work, and mortality; measurement of ability to work; physically demanding occupations)

(2) financial aspects of the social security system (how does Social Security compare with private retirement benefits and what is the appropriate private comparison)

(3) economic changes after retirement (changes in sources and amount of income; changes in the economic circumstances of women as they move into and adjust to widowhood; movements into, or out of, poverty; changes in asset holdings; change in spending patterns; dynamics of financial transfers within families; changes in health care costs; economic correlates of mortality and morbidity).

Budget: For priority area (1), $197,000 to fund up to three projects; for priority area (2), $75,000 to fund one project; for priority area (3), $275,000 to fund up to five projects.

Review process: Applications will be evaluated by panels of federal and nonfederal reviewers.

Deadline: July 6, 1987

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