Consortium of Social Science Associations

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HOUSE SUBCOMMITTEE EXPLORES ISSUE OF SCIENCE PRIORITIES

The House Science, Research, and Technology Subcommittee, chaired by Rep. Doug Walgren (D-PA), convened hearings on February 28 and March 1 to hear various opinions on how and to what extent Congress and scientists should set priorities in federal funding for research and development (R&D). Witnesses from the scientific and academic communities and members of Congress were able to agree on one point: any attempt to set priorities in federal R&D spending would prove a formidable challenge. The hearings follow the release of a congressionally mandated report on the subject, a joint effort by the National Academy of Sciences (NAS), the National Academy of Engineering (NAE), and the Institute of Medicine.

Witnesses often touched on the report, Federal Science and Technology Budget Priorities: New Perspectives and Procedures, and most concurred with its findings. For the most part, witnesses did not use the hearings to push their respective causes or offer formulas that would benefit only their areas of expertise (though some plugs were clearly made on behalf of a few disciplines, including engineering and mathematics). Instead, members and witnesses alike seemed most concerned about the issue of overall criteria -- what measures policy-makers should use in reaching funding decisions.

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The Consortium represents more than 185,000 American scientists across the full range of the social and behavioral sciences, functioning as a bridge between the research world and the Washington community.

Raymond E. Wolfinger, President

Howard J. Silver, Executive Director

Noting that there is no well-defined process currently in place for evaluating and prioritizing new science initiatives or balancing the overall federal R&D investment, Walgren said in his opening remarks on the first day of hearings that "even if we could double the federal science budget tomorrow, we would not escape the need to establish priorities for allocating those resources." Referring to the current method of choosing among science projects, Rep. Sherwood Boehlert (R-NY), the Subcommittee's ranking Republican, said the term "ad hoc" is "probably too charitable." As for the NAS report, Boehlert said it failed to address to his satisfaction the crucial question of what criteria Congress should use in judging the relative merit of scientific proposals.

The report's recommendations were summarized at the hearing by NAE President Robert White, who noted the report's call for creation of a framework for guiding federal science and technology budget preparation and assessment. Within this framework, proposed science expenditures would be examined in relation to the national purposes they serve. This examination would focus on four areas of consideration: science and technology activities supporting agency missions; the maintenance and advancement of the nation's science and technology base; science and technology support for national priorities as decided by the President and Congress; and major and costly science or engineering initiatives that require large incremental expenditures.

White noted that the report does not propose major changes in the basic budget process, though it does suggest that the administration provide the agencies with science and technology budget guidance early in the budget cycle. This, in turn, would send Congress a clearer message about the administration's priorities in science. The entire process would include better collaboration between the Office of Management and Budget and the President's Science Advisor in developing cross-cutting objectives for the agencies.

Witnesses suggested a wide range of possible criteria for choosing among research initiatives, most of them concentrating on an initiative's likely contributions to scientific knowledge, national and global environment, the nation's economic security and sense of purpose, and the social well-being of its citizens. There were several recurring themes in the course of the hearings, the most notable being the need to bolster science and engineering education and to improve and maintain the nation's research facilities. In addition, several witnesses registered their concern about the distortions caused by the federal government's tendency to lump defense and non-defense R&D together. On the second day of hearings, Rep. Claudine Schneider (R-RI) voiced her concern that the R&D budget is too lopsided in favor of defense (65% in fiscal 1990), and that the first order of business might be to "balance" military and civilian R&D. George

Keyworth, who testified as a former science adviser to President Reagan, quickly came to the military's defense, arguing that the Department of Defense has often "ridden to the rescue" to ensure that basic research is applied commercially.

While there was much talk of devising a clearer guidance system for policy-makers (whether in the form of criteria-making advisory bodies or stronger direction from the President and his science advisor), witnesses were quick to point out the benefits of decentralization in the decision-making process, one example being the large array of federal science-funding agencies, each with its own distinct mission. Echoing the academies' report on science priorities, Lewis Branscomb of Harvard University's JFK School of Government and former chairman of the National Science Board, recommended that decentralization be maintained wherever it is "compatible with good management." Nevertheless, he said there is a need for analysis across agencies as well.

In some particularly colorful testimony, Richard Muller, professor of physics at the University of California, Berkeley, warned of the dangers in relying on the use of formulas and criteria to make research funding decisions. Namely, this is not the path to bold or innovative science. And boldness, he said, is something science demands.

As for "big science," Muller noted that while immense projects are important, exciting, and worthy of support, "they will not keep us at the forefront of science any more than being the world's largest producer of cars kept us at the forefront of automobile technology." Muller's suggestion: "The President must listen closely to as many great scientists as he can stand to listen to, and then guess whether the country will be sufficiently inspired by a large scientific effort that they will be willing to pay the bill."<<

PILOT STUDY FOR SURVEY OF SEXUAL BEHAVIOR AWAITS OMB APPROVAL

It's been nearly half a century since Dr. Alfred Kinsey attracted a nation's attention with his survey of Americans' sexual behavior. The Kinsey study was a landmark. However, it lacked scientific rigor; namely, its sample was not randomly selected. Furthermore, the passage of time has eroded its relevance in an ever changing world.

Despite the study's age and flaws in its methodology, researchers and public health officials still use Kinsey's findings for lack of better data. But with the onslaught of AIDS, there have been calls from many quarters, including the National Academy of Sciences/Institute of Medicine and the Presidential Commission on the HIV Epidemic, for a major, federally-backed study of sexual behavior.

Now the federal government is poised to do just that, through the National Institute on Child Health and Human Development's support of a national survey of sexual behavior and attitudes. The proposed two-year survey would be the largest and most comprehensive of its kind, with 20,000 people randomly chosen and interviewed at a proposed cost of \$15 million.

The National Opinion Research Center has been awarded a contract to conduct the pilot phase of the survey, which would involve 2,300 people. The survey instrument designed for this pilot phase is currently under review at the Office of Management and Budget (OMB) by virtue of the agency's information clearance approval power, provided by the Paperwork Reduction Act. OMB is expected to make its decision regarding approval shortly.

Because of the proposed survey's potential impact on public health policy (AIDS and otherwise), a large number of researchers, public health officials, policy-makers, and others await OMB's decision. COSSA has joined other groups in urging OMB Director Richard Darman to approve the survey's pilot study. Stay tuned.

GOVERNORS RELEASE REPORT ON INTERNATIONAL EDUCATION

As has been true in the past when the federal government has abdicated or neglected certain areas of responsibility, state governments -- the "laboratories of democracy" -- have become the prime developers of policy innovation. Thus, as the international education and foreign language training programs of the federal government languish on the thorns of the budget deficit, the states have produced many initiatives in this policy arena. On February 25, the National Governors Association (NGA) Task Force on International Education, chaired by New Jersey Governor Thomas Kean, issued its report, "America in Transition: The International Frontier," which focuses on many of these policies.

This year's NGA chairman, Virginia Governor Gerald Baliles, set the tone for the report, noting, "In 1989, the United States is not well-prepared for international trade. We know neither the languages, the cultures, nor the geographic characteristics of our competitors." Citing the all-too-familiar examples of geographic illiteracy and limited foreign language proficiency that demonstrate Americans' lack of international competence, the report emphasizes that "international education must be an integral part of the education of every student." Minnesota Governor Rudy Perpich, a member of the Task Force, notes in the report, "We envision world languages beginning in the elementary grades, student and teacher exchange programs, and study-abroad programs that concentrate on language, culture, government, and trade." Hawaii Governor John Waihee, another member of the Task Force, calls for international literacy: "an understanding of culture, language, geography, history, and current events."

Although the report claims that international education in the nation's schools has improved in recent years, it adds that many obstacles remain in the way of achieving the governors' goals. These include: teachers' lack of adequate international preparation; simplified textbooks in the social sciences; omission of international competence from student assessments; fragmentation in the approach of colleges and universities to the subject; limited resources; and the lack of information about the "secrets" of international trade.

To solve these problems, the innovative approaches taken by certain states must spread and inspire other new ideas. Examples include: a new requirement in North Carolina that by 1993 all of the state's public school children from kindergarten to fifth grade must take a second language; the California International Studies Project, in which nine regional centers provide teachers with the opportunity for training and study in such subjects as world geography, regional studies of Asia, Africa, and Latin America, international economics, and other related subjects; use of returning Peace Corps volunteers to teach classes and give presentations to business and community groups; the Pennsylvania International Education Collaborative, in which university professors with research experience in and knowledge of international trade, politics, economics, and world history are available to provide advice to elementary and secondary school teachers; and the Intermountain-Pacific Rim Trade Project at the University of Utah, whose data center provides businesses, public agencies, and educators with information to help them locate, understand, and develop Pacific Rim markets.

Many governors in recent years have seen international industries and markets as a key to renewed economic development in their states. Many have, in the process, received a strong dose of international education themselves. They believe it is time their constituents do the same. Copies of the Task Force report are available from the National Governors Association, 444 North Capitol Street, NW, Washington, DC 20001.<<

RESEARCHERS EXPLORE BENEFITS, CHALLENGES OF INFORMATION TECHNOLOGY

Since the creation of the first electronic digital computers almost 50 years ago, the nature of scientific research across all disciplines has changed dramatically. A recently released report attempts to outline these changes, target current trends and problems, and anticipate the potential benefits and challenges that "information technology" (computers and telecommunications) offers researchers in the future.

Information Technology and the Conduct of Research:
The User's View was compiled by the Committee on Science,
Engineering, and Public Policy, a joint body of the National
Academy of Sciences, the National Academy of Engineering, and the
Institute of Medicine. Several position papers were used in the

report's creation, including one that measures the past, present, and future effects and implications of computers on psychological research, with some additional reference to other social sciences. Another paper used in the report focuses on computers as they relate to economic research.

In the first paper, "Computers in Behavioral Science," Bert Green of the Johns Hopkins University and Cynthia Null of the College of William and Mary note that computers have "wrought profound changes in research patterns in the behavioral and social sciences," and have in fact become indispensable. The authors explain that while their report focuses on psychology, parallel developments have occurred, to a greater or lesser extent, in the other social sciences.

In their paper, Green and Null note that information technology has strongly influenced not only psychological research, but behavioral theories as well. Computers were instrumental in the theoretical evolution from "people as responders to stimuli" to "people as information processors." Green and Null note that today, most theories of sensation, perception, learning, and memory are in fact information processing theories.

The position paper on economics, entitled "The Impact of Information Technology Upon Economic Science," by Paul David of and W. Edward Steinmueller of Stanford University's Center for Economic Policy Research, examines the current pattern of computer use in economics, particularly in academia. It also explores the possible impact information technology could have on economic research in the near term.

In their recommendations, David and Steinmueller urge the establishment of a wide-ranging effort to study the technical and economic factors underlying the use of information technology in academic economics. In addition, they argue that the National Science Foundation should work harder to improve the access of economics researchers to supercomputer facilities. The authors also urge that public agencies, university administrators, and others "prepare to make the major investments that will be required to upgrade computational, software, networking, and technical support resources available for economics teaching and research during the coming decade."

Recommendations in the main report include a call for institutions to develop and support policies, services, and standards that help researchers use information technology more widely and productively. It also suggested that the federal government lead an effort to develop an interconnected national information technology network for all qualified researchers. In addition, the report urged the National Research Council to charge a standing body (new or existing) with overseeing and advising on research use of information technology.<<

SOURCES OF RESEARCH SUPPORT: OFFICE OF THE PRESIDENT

COSSA provides this information as a service and encourages readers to contact the agency for further information or application materials. Additional application guidelines and restrictions may apply.

Commission on the Bicentennial of the United States Constitution

The Commission on the Bicentennial of the United States Constitution announces the second round of FY 1989 funding from its Educational Grant Program. The Commission seeks applications for the development of instructional materials and programs on the Constitution and the Bill of Rights which are designed for use by elementary or secondary school students. The purpose of this award is to help elementary and secondary school teachers develop a better understanding of the history and development of these historic documents, and to provide them with materials and methods to improve their teaching abilities in this area.

In this round of funding, the Commission is focusing on study of the Judiciary and its historical development in the 200 years since the first session of the Supreme Court. In addition, for projects taking place in the 1990-91 school year, the Commission welcomes proposals that focus on the Bill of Rights and subsequent amendments.

<u>Application Procedure</u>: Applications can be obtained from the contact listed below.

<u>Budget</u>: The Commission expects to fund about 30 to 40 awards at a total cost of approximately \$2 million.

Deadline: May 15, 1989.

Contact: Anne A. Fickling

Associate Director of Educational Programs

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NOTE TO READERS: TOPICAL INDEX FOR VOLUME VII OF UPDATE NOW AVAILABLE

A topical index of articles that appeared in Volume VII of <u>COSSA Washington Update</u> is now available. <u>Update</u> subscribers can request complementary copies from COSSA, 1625 I Street, NW, Suite 911, Washington, DC 20006.

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