# COSSA WASHINGTON UPDATE

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# PANEL RELEASES REPORT ON FUTURE OF NSF

"The history of science and its uses suggests that the NSF should have two goals in the allocation of its resources. One is to support first-rate research at many points on the frontiers of knowledge, identified and defined by the best researchers. The second goal is a balanced allocation of resources in strategic research areas in response to scientific opportunities to meet national goals." This is the main conclusion of A Foundation for the 21st Century: A Progressive Framework for the National Science Foundation, a concise 11 page report of the 15 member Commission on the Future of the NSF, that was made public at the November 20 meeting of the National Science Board (NSB).

### Two-Pronged Approach

In advocating for this two-pronged approach for NSF's support of research and education, the Commission was cognizant of the recent calls for research more relevant to society's needs made by such key actors in national science policy as Sen. Barbara Mikulski (D-MD), chair of the subcommittee that appropriates NSF's funds, and Rep. George Brown (D-CA), chairman of the House Science, Space and Technology Committee. "In accepting society's support, the scientific community naturally assumes an obligation to be both responsive to national needs voiced by society as well as the intellectual properties solely initiated by the scientist or engineer," the report noted.

Co-chaired by Robert Galvin, Chairman of the Executive Committee of Motorola, and William Danforth, Chancellor of Washington University in St. Louis, the Commission maintained that the recommendations "are made in the spirit of continual improvement of a fine existing system" in which the NSF's "key role in the support of research in science and engineering should be strongly reaffirmed."

### Supports Merit Review

The Commission strongly supported merit review noting it "has proved to be the best way of

tapping into the creativity of research scientists and engineers." However, the report also pronounced that it is appropriate to "involve the private sector more fully than heretofore in the decisions which affect the classes of research allocation as well as some evaluation of the effectiveness of the expenditures." How this would be done is unclear. Commission member John Armstrong, Vice-President for Science at IBM, suggested putting scientists in industry on NSF advisory committees and using them as program rotators.

### Interdisciplinary Work Encouraged

The report strongly encourages interdisciplinary research. Armstrong's position from the commission's last meeting that "nature knows no disciplinary boundaries" was included in the report. (University of Wisconsin Chancellor Donna Shalala's retort that "nature doesn't have tenure," was not.)

NSF is urged to examine the size of its grants, but on a field distinct basis in consultation with those communities, and "from time to time review the makeup and combinations of Directorates to maintain the most effective focus and management of the selection process, taking into account the evaluation of research, the desirability of interdisciplinary research, the needs of different types of research and efficiency of operation."

The Commission stayed away from the issue of technology transfer in its report, speaking instead of

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"diffusion and dissemination of knowledge and skills derivable from scientific and engineering discoveries." Although suggesting the system is working, the report offers several improvements: more cross-disciplinary cooperation; more exchanges of people between universities, industry, and government; support of research with active industrial participation; continued funding for the maintenance of and access to large scale data bases; and further development of information infrastructure such as NSFNET.

The report calls for a larger role for NSF in promoting and interpreting the process by which new knowledge eventually leads to societal benefits. The Commission also endorsed greater international scientific cooperation, and called on the NSB to "work for a national plan to keep [instrumentation and facilities] adequate for the conduct of pioneering science and engineering."

### **Education Recommendations**

Under its education recommendations, the report states: "The Foundation should be at the leading edge of ever-emerging improvements in curricula, and methodologies of teaching and training for research." As part of this, NSF should encourage joint science, engineering, and management education programs.

The Commission claims the two areas most in need of improvement are K-12 and undergraduate education. The NSF needs to pursue K-12 improvements in collaboration with the Education Department and other interested parties, the Commission said. In undergraduate education, the introductory course should be a special focus.

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The Consortium of Social Science Associations 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. Update is published fortnightly. Individual subscriptions are available from COSSA for \$50; institutional subscriptions, \$100, overseas mail, \$100. ISSN 0749-4394. Address all inquiries to COSSA, 1522 K Street, NW, Suite 836, Washington, D.C. 20005. Phone: (202) 842-3525, Fax: (202) 842-2788

### Teaching-Research Dichotomy

Commenting on the teaching-research dichotomy, the Commission stated that "Undergraduate education is enriched by faculty participating in research." On graduate education, fellowships and traineeships are endorsed, as is the vigorous encouragement of involving underrepresented groups in science and engineering.

Reflecting the views of Chairman Galvin, the report has a section concerning the use of measurement systems to improve the quality of operations. It states: "All reasonable measurements of the quality of the output of research, the quality of research allocation and the other principal functions of the Foundation should be subject to rigorous and common sense metrics for the evaluation and increase in the quality of its activities."

The report also asks the NSB to "work with its peers in the private and public sectors so that the nation might formulate a much needed science and technology roadmap." In particular, it urges the Board and those involved in planning a coherent national science and technology policy to "resist any pressures to strip NSF of its full spectrum of research goals and linkage mechanisms, from engineering research centers, to computer networks, to pure science and mathematics. The great strength of American science and American universities is the absence of rigid cultural barriers between science and engineering and between pure research and its applications." Yet, it also advocates "a broad national policy going beyond science and engineering and including technology and its applications."

### NSF Funding Inadequate

Finally, the Commission acknowledges that "The NSF will find it difficult to respond to these new challenges without an increase in resources, for the budget of the NSF already is inadequate to support its present responsibilities and programs."

However, reflecting the reality of fiscal constraints, the panel asks business to expand its contributions to complement public funding of science and engineering research.

Reacting to the Commission's report, NSF Director Walter Massey was pleased that the report recognized the need for greater linkages and integration in all facets of what NSF does: a greater integration of science and engineering research into society, and the public's increasing expectations for the results of this research; support for research that crosses traditional disciplinary boundaries and links science and technology; more active use of partnerships, especially with industry and other government agencies in strategic research areas; and integration of science and technology into our educational curriculum at all levels and for all students.

In accepting the Commission's report, NSB Chairman James Duderstadt, President of the University of Michigan, called it an "historic moment for NSF," and praised the panel for its "outstanding job in grappling with some very complex issues of basic significance to NSF and to the entire country." Both Massey and Duderstadt noted the more than 800 letters the Commission received from all over the country. Duderstadt noted the report was a first step in a lengthy deliberative process on the future of the NSF. He assured the NSB and the many scientific community members in the audience that the Board would provide ample opportunities for a full discussion of the Commission's report.

# NSF DIRECTOR IS FEATURED SPEAKER AT COSSA ANNUAL MEETING

In a luncheon address at the 1992 COSSA Annual Meeting, which took place on November 16 in Washington, D.C., National Science Foundation Director Walter Massey discussed the future of NSF in the context of the reexamination of national science and technology policies. Massey shared his views just days before the release of the report of the Special Commission on the Future of NSF.

Massey said that the commission was not created to "fix" NSF, saying that NSF is not broken and will remain "the primary federal agency for research in the sciences." Rather, he said, the panel was asked to examine how NSF could be made stronger. Massey argued that NSF "runs the risk of being crippled in the future if it doesn't adapt to changes in the scientific environment."

This changing environment, Massey said, is largely characterized by the end of the Cold War, which has led to a rethinking of science and technology policy. He noted the increased expectations of NSF in areas such as the environment, education, and improving

competitiveness. Massey said that these increased expectations have grown without a "concomitant" increase in funding for the Foundation. On the one hand, Massey argued, there has been a growing awareness of our dependence on research universities, but on the other hand, the federal-university partnership has come under greater scrutiny.

Massey outlined three options for the future of NSF. One would be the divestiture of many of NSF's activities and a return to supporting only individual investigator and small group research. The second would be continuing on NSF's present course, while the third would be for NSF to enhance its role with a long-term strategy that includes a closer link to industry. Massey said that while no option is without risk, the second option would be the most risky because of the uncertainties of the changing environment.

Massey said it was imperative for NSF to undertake such an examination at this time, contending that these questions would not go unasked. He maintained that by creating the Special Commission, he was "looking for a way to control our own destiny." He said he asked the commission for a "reality check" on NSF's future and that the report would be thematic and not include specific programmatic recommendations. Massey acknowledged that concern exists in scientific and education circles that NSF will abandon its historic mission, but he assured those in attendance that his highest priority for NSF will remain "the strengthening and enhancing of academic research and education in the sciences."

In response to several questions from the audience that expressed concern about the future of basic research at NSF, Massey said there would not be "an arbitrary separation between basic and applied... the stark contrast between basic and applied is becoming an anachronism." He said that NSF would seek to link the research it supports to societal needs. Massey stated that this current period of ferment in science could be a "period of opportunity" for the social and behavioral sciences to "make a greater contribution" to the future of NSF and of science policy.

### Federal-University Relationship Discussed

Peter Magrath, President of the National Association of State Universities and Land Grant Colleges (NASULGC), and a member of the Special Commission on the Future of the National Science Foundation, addressed the meeting on the state of research universities and their relationship to the federal government.

Magrath said his operating assumption is that "a high quality education that includes research as its creative engine is fundamental to our society and to our world's well-being, and that continuing public education on that point is essential." He stated four premises relevant to the current health of research universities: research is essential to the economic and social well-being of our nation; there is a changing environment that has placed research universities under siege and stress; the unique role of research universities is misunderstood; and there are pressing issues for research universities to address, particularly those relating to financial management and research and scientific fraud. Most importantly, Magrath, said "unless we are seen as really caring about the quality of undergraduate education, the base of support for research at the state and federal levels will be jeopardized."

Commenting on the federal-university partnership, Magrath said that in recent years the relationship has become more cumbersome, adversarial, and bureaucratic than it need be. He said that the partnership is troubled and needs major examination. Magrath argued that an effective relationship needs to be not just between the government and universities, but a partnership within the government as well. He urged the creation of a forum between research universities and the government to meet frequently in working groups to improve that relationship.

Turning to the state of the social sciences, Magrath, a political scientist, said it was unfortunate that "an informal hierarchy" has placed the physical and natural sciences above the social and behavioral sciences. He expressed confidence that the creation of a separate directorate for the social sciences at NSF will send an important message of support for the social sciences. Magrath predicted that the Clinton administration will have a more open attitude towards research, particularly in sensitive areas such as research on sexual behavior and AIDS. He concurred with Massey's view that there is a role for social science in promoting the importance of science. Magrath concluded his remarks by offering his opinion that the scientific community needs to do more to convey the importance of science to policymakers, particularly the large freshman class in the 103rd Congress.

### Schultze Outlines Future of Economy

Charles Schultze, Senior Fellow at the Brookings Institution and a member of the COSSA Board of Directors, spoke on the economic challenges facing the new Administration. Schultze, who had served as the Chairman of the President's Council of Economic Advisers in the Carter White House, said the top priority for the Clinton administration will be the economy and added that this year's campaign rhetoric was dominated by jobs.

Schultze outlined three major problems facing the American economy. The first, he said, is the lack of a real recovery from the recession. He argued that consumer purchases are too low to lead to maximum output from the economy. According to Schultze, the recession lingers because of "the hang-over from the 1980s" of increasing levels of consumer debt and a shortage of capital making the banking system reluctant to lend for investment. He said that a declining savings rate limits the amount of capital that can be borrowed for investment. The second problem he outlined was slow long-term growth of productivity, standard of living, and real wages relative to other industrialized nations. Schultze said that this will be the first generation in history where a large percent of the population will do worse than their parents, something he says has fueled public anger over the state of the economy. The third problem Schultze described was a growing maldistribution of income, saying that approximately 20-40 percent of families are doing worse economically than they were in the 1970s. He said that the poor quality of the education and training of the 50% of the population that enters the workforce without attending college is the main reason why wages have fallen.

In discussing how to address the budget deficit, Schultze said it requires tax increases and reductions in entitlements. The deficit, which he said is "eating us out of house and home," is being increased largely by the cost of interest on the debt and rising health care costs. In his opinion, the federal government is doing a credible job in limiting spending in other areas. Schultze advocated a 5-6 year budget deficit reduction plan with a gradual phase-in period. He cautioned that the financial markets will react with skepticism to any short-term economic stimulus package if it is not part of a longer economic plan.

In offering his advice on how the new Administration should proceed, he said they should be guided by the long-term consequences of the

# EDUCATION DEPARTMENT SEEKS FIELD READERS

The Office of Bilingual Education and Minority Languages Affairs (OBEMLA) at the Department of Education is inviting individuals to serve as field readers for grant application competitions. Readers will be provided honoraria for their service and must travel to the review site in Washington, D.C.. For more information, contact OBEMLA at (202) 205-8071.

"U.S. being a country which no longer saves and invests very much." He urged President-elect Clinton to use his political capital early in his term to work for tax and entitlement changes.

#### Panel Examines Children and Research

The final event of the meeting was a panel discussion entitled "Children: Linking Research and Policy," which examined the role of research in the context of larger issues of child policy, focusing on prospects under the new Clinton Administration. The panel, moderated by COSSA Associate Director for Government Affairs, Judy Auerbach, featured Karen Hendricks, Assistant Director of the Office of Government Liaison at the American Academy of Pediatrics, Donald Hernandez, Chief of the Marriage and Family Statistics Branch at the U.S. Bureau of the Census, and May Kennedy, a Professional Staff Member of the House Select Committee on Children, Youth, and Families.

Auerbach began the discussion by asking the panelists to comment on what researchers and policymakers know and do not know about children. Hernandez cited what he termed "three enormous transformations" in American family life in the past 50 years: the percentage of working mothers increasing from 9 percent in 1940 to 61 percent in 1992; the rise in mother-child families from 8 percent of families in the 1960s to the current 22 percent; and the number of children living in poverty increasing from 15 percent in 1973 to 21 percent in 1992. As a gap in knowledge, he cited the lack of clear data on what impact 100 percent effective child support enforcement would have on poverty rates. Kennedy said another significant area in which we lack knowledge is how to engender favorable developmental factors that create skills and enhance incentives to avoid risky behavior. She added, for example, that we do not know why 12 year-old girls often experience concurrent drops in

self-esteem and academic performance. Hendricks said that a major problem in child policy is the lack of effective coordination across federal agency lines.

Discussion turned to whether children, youth, and adolescent policies ought to be distinguished both conceptually and programmatically. Hernandez and Kennedy agreed that effective policy should recognize all categories. Noting "the seamless web of life," Hernandez asserted the need for longitudinal studies to examine the impact of life experiences on the child and adolescent development. Hendricks argued that from a service provision perspective, policies should take a holistic view of children's lives, for example recognizing that people often are trapped in a cycle of poverty, through which they travel in many stages of their own development.

Noting the surge in discussion about child policy related to Hillary Clinton's commitments to children and family issues, Auerbach asked the panelists to comment on the prospects of creating a single agency to lead and coordinate child policy. Hernandez said that it would seem to be a wise move, but would be politically and bureaucratically unlikely to occur. He spoke of the advantages of having one active, visible spokesperson for our nation's youth. Kennedy outlined the history of such efforts, as evidenced in the original Children's Bureau and suggested that such a person should be given a specific program or set of programs to implement or be made a "czar" to coordinate policies and acts as an advocate. Hendricks said that a "czar" -- or "czarina" would likely get bogged down in bureaucratic infighting, and offered that what is needed instead is strong leadership from the White House on children's issues. Hendricks expressed confidence that the Clinton Administration could achieve this.

# NAS PANEL LOOKS AT UNDERSTANDING AND PREVENTING VIOLENCE HS

"In cities, suburban areas, and even small towns, Americans are fearful and concerned that violence has permeated the fabric and degraded the quality of their lives." So begins the National Research Council's (NRC) report *Understanding and Preventing Violence*. Produced by a panel of the NRC's Committee on Law and Justice with support from the National Institute of Justice, Centers for Disease Control, and the National Science Foundation, the report reviews what is known about

# SSRC ANNOUNCES URBAN UNDERCLASS DATABASE

The Social Science Research Council has announced the availability of the Urban Underclass Database, a consolidated public use database containing panel study data over a 30 year period (1960-1990) and some 5,800 economic, social, demographic, crime and health indicators for nation's 100 largest cities and their poverty subareas. The Database was designed by sociologist John D. Kasarda of the University of North Carolina. For further information contact: Andrea Bohlig, Kenan Center, CB# 3440, University of North Carolina, Chapel Hill, NC 27599-3440, (919) 962-8201.

violence in America, what research is needed to understand the causes of violent behavior, and what interventions may contribute to the control of violence.

Chaired by Albert J. Reiss Jr., Chair of the Sociology Department at Yale University, the 19 member committee included criminologists, sociologists, psychologists, psychiatrists, biologists, and law professors.

### Multi-Strategy Approach

The report recommends a multi-strategy approach to interventions to prevent violence, broad mandates that encompass basic and applied research, maximum feasible independence from political forces in setting the research agenda, and a commitment to diversity and collaboration across the social, behavioral and biological sciences, evaluation research, and policy analysis.

The panel called for increased support for violence research which it found was supported "well below that accorded research on other threats to life." Specifically, the research recommendations include:

- 1) developmental and psychosocial studies to examine the factors leading to an individual's potential for violent behavior;
- 2) longitudinal studies of children from different socioeconomic and demographic communities focusing on why some children exhibit patterns of aggressive behavior at early ages, and why only a

small proportion of these children commit violent crimes as adults;

- research on the circumstances of violence, the effectiveness of police and the role of firearms and drugs in violent events;
- 4) modification and expansion of computer databases to provide more detailed information about violent events; and
- 5) studies examining physiological processes that underlie violent acts, including the search for new pharmaceuticals that reduce violent behavior.

Copies of the report are available from the National Academy Press (202) 334-3133 or 1-800-624-6242.

## WILSON ELECTED COSSA PRESIDENT; SCHULTZE AND CLARK NAMED TO BOARD OF DIRECTORS HS

William Julius Wilson, Director of the Center for the Study of Urban Inequality and the Lucy Flower Distinguished Professor of Sociology and Public Policy at the University of Chicago was elected President of the Consortium of Social Science Associations (COSSA) by the Board of Directors at its meeting on November 15. Wilson who has served on the Board for the past two years succeeds Joseph Grimes, Professor Emeritus of Linguistics at Cornell University. Wilson will serve a two-year term commencing on January 1, 1993.

Charles Schultze, Senior Fellow at the Brookings Institution and former Chairman of the Council of Economic Advisers, was reappointed to another two year term on the COSSA Board. Joining the Board for the first time is Eloise E. Clark, Vice-President for Academic Affairs at Bowling Green State University. Clark is a former Assistant Director for the old Biological, Behavioral and Social Science Directorate at the National Science Foundation and is the President-elect of the American Association for the Advancement of Science (AAAS).

# SOURCES OF RESEARCH SUPPORT: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES KC

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.

### Vaccine Trials and Epidemiology Branch

The Vaccine Trials and Epidemiology Branch (VTEB) of the Division of AIDS (DAIDS) of the National Institute of Allergy and Infectious Diseases (NIAID) invites applications for cooperative agreements for the establishment of a Women's Interagency HIV Study (WIHS) to investigate the clinical, laboratory, and psychosocial impact of human immunodeficiency virus (HIV) infection in women. The WIHS will use a multi-site, prospective study design to gather data on the clinical, immunological, virological, and behavioral aspects of HIV infection and disease in women. This study will investigate the full spectrum of clinical disease caused by HIV infection in women. It also will seek to determine other cofactors that may be associated with HIV disease progression in women.

Background: The primary purpose of this RFA is to develop a cooperative multi-site prospective epidemiologic study of the clinical, immunologic, and virologic and behaviorally-associated aspects of HIV disease progression in women. The overall objectives of this project are to:

- Investigate factors which may delay or may accelerate HIV-induced immune dysfunction and specific manifestations of HIV-associated clinical disease.
- Study the length of survival and quality of life of women living with HIV infection.

Letter of Intent: Prospective applicants are asked to submit, by January 11, 1993, a letter of intent that includes a descriptive title of the proposed research, and the name, address and telephone number of the Principal Investigator.

Application Procedure: The research grant application form PHS 398 is to be used in applying for these cooperative agreements. Submit a signed, typewritten original of the application, including the checklist, and three signed, identical single-sided photocopies, in one package to: Division of Research Grants, NIH, Westwood Building, Room 240, Bethesda, MD 20892. At the time of submission, two additional copies must be sent directly to: Dr. Dianne Tingley, AIDS RRS/SRB/DEA, NIAID, 6003 Executive Blvd., Room 4C16, Bethesda, MD 20892. Applications must be received by both the Division of Research Grants and Dr. Tingley by February 18, 1993.

Funds Available: Approximately \$5,000,000 will be available for funding the total costs of the WIHS during its initial year. The earliest possible award date is July, 1993. The NIAID anticipates making two to five awards as a result of this RFA. The final number of awards to be made is dependent upon receipt of a sufficient number of applications of high scientific merit and the continuing availability of funds.

Review Process: This application must be directed toward the objectives identified in the RFA. The primary factors that will be considered in the review of the application will be the demonstrated ability or potential to achieve the recruitment and retention goals, scientific merit of the research plans, and the capability to participate in this multicenter study.

Contact: Direct inquiries regarding programmatic issues and requests for the RFA to: Dr. Sandra Melnick, Vaccine Trials and Epidemiology Branch, Division of AIDS, NIAID, Solar Building Room 2A28, 6003 Executive Blvd., Bethesda, MD 20892, fax: (301)402-1506. For fiscal inquiries contact: Ms. Jane Unsworth, Chief, AIDS Grants Management Section/DEA, NIAID, Solar Building Room 4B25, 6003 Executive Blvd., Bethesda, MD 20892, phone: (301)496-7075, fax: (301)480-3780.

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