

TESTIMONY OF
CONSORTIUM OF SOCIAL SCIENCE ASSOCIATIONS
(COSSA)

HOWARD J. SILVER
Executive Director

on the

FY 2004 APPROPRIATION

FOR THE

NATIONAL SCIENCE FOUNDATION (NSF)

submitted to the

HUD, VA, INDEPENDENT AGENCIES SUBCOMMITTEE
COMMITTEE ON APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES

HONORABLE JAMES T. WALSH, CHAIRMAN

APRIL 15, 2003

Mr. Chairman and Members of the Subcommittee:

The Consortium of Social Science Associations (COSSA) represents over 100 professional associations, scientific societies, universities and research institutes concerned with the promotion of and funding for research in the social, behavioral and economic sciences (SBE). COSSA functions as a bridge between the research world and the Washington community. A list of COSSA's Members, Affiliates, and Contributors is attached. We appreciate the opportunity to comment on the spending request for FY 2004 for the National Science Foundation.

COSSA appreciates the Subcommittee's past strong support for NSF, particularly last year's substantial budgetary increase. COSSA is well aware that each year you confront difficult choices among competing agencies under the Subcommittee's jurisdiction. COSSA is delighted that the Subcommittee leadership has expressed that NSF will remain a significant priority for them.

COSSA strongly believes that investing in NSF's research and education efforts will help determine this country's future economic well-being and national security. Therefore, **COSSA finds the administration's proposal for a \$171 million increase for NSF in FY 2004 totally inadequate. In agreement with the Coalition for National Science Funding and the NSF reauthorization bill, COSSA strongly supports doubling the NSF budget over the next five years. The Coalition for National Science Funding (CNSF), in congruence with the reauthorization legislation, recommends a FY 2004 budget for NSF of \$6.391 billion. COSSA endorses this recommendation.** This budget enhancement will return many-fold its value in economic growth, help save lives, promote prosperity, and improve society, and provide more excellent science from more excellent scientists.

Over the past half century science has been the engine that has driven the nation's economic success and quality of life improvements. Fundamental university-based science has delivered the great technological advances that have provided for new methods and products that have advanced our nation forward. These include: geographic information systems, World Wide Web search engines, automatic heart defibrillators, product bar codes, computer aided modeling, retinal implants, optical fibers, magnetic resonance imaging, and composite materials used in aircraft.

A substantial increase for NSF in FY 2004 will forge great advances in the 21st Century. A much larger than proposed budget enhancement would allow NSF a much-needed boost for the size and duration of its research and education grants. It would also lead to improving the scientific literacy of the nation's students and general population. As our business leaders understand, without improvements in education and training and new innovations and scientific findings, growth will stall. NSF needs a significant influx of new funds.

The FY 2004 Budget and the Social, Behavioral and Economic Sciences (SBE)

COSSA also believes the small 1.2 percent increase proposed for the Research and Related Activities Account is dismal. The reauthorization bill calls for a FY 2004 amount of \$4.8 billion for R&RA and COSSA strongly endorses that figure.

For the Social, Behavioral and Economic Sciences Directorate (SBE), the administration proposes \$211 million for FY 2004. The final FY 2003 appropriation for SBE was \$191 million. With some restored funding for the Science, Resources, and Statistics division the SBE current plan is \$195.6 million. Although the proposed increase from FY 2003 to FY 2004 is 8.2 percent, seemingly larger than most of the other directorates, *in absolute terms* this is only \$16 million, quite smaller than almost all of the other directorates. For the two research divisions the increase is only \$12.1 million. Another thing to keep in mind is that NSF provides almost one-half of federal support for basic research for these sciences. For some fields in the SBE sciences NSF is the only source of federal support for basic research and infrastructure development.

The Social, Behavioral and Economic (SBE) Sciences are poised and ready to make significant discoveries in the future. Improvements in computer computation, computer communication, and the rapid increases in multidisciplinary scientific endeavors that make the old model of these sciences as “cottage industries” a difficult one to sustain any more. Collaborations, collaboratories, merged databases, functional MRIs, and virtual centers are the future of SBE research.

Recognizing this, NSF has proposed a Foundation-wide priority called **Human and Social Dynamics (HSD)** in the FY 2004 budget. This priority area has been developed and discussed with the SBE community for over three years. Begun with \$10 million in seed money in FY 2003, HSD has a proposed budget of \$24.5 million in FY 2004, about two-thirds of which is from the SBE proposed budget.

The priority area seeks to understand change: its causes and ramifications, how to anticipate it, how the human mind and social structures create it, and how people and organizations manage it. These questions will be investigated using multidisciplinary approaches with already existing sophisticated research techniques as well as providing support for the development of improved tools for future investigations.

For FY 2004 areas of emphasis include: 1) enhancing human performance on the individual and organizational levels; 2) understanding decision-making under uncertainty; 3) comprehending agents of change, particularly in large scale transformations, such as globalization and democratization; 4) analyzing and modeling various aspects of HSD, including complex networks such as terrorism; 5) improving and using spatial social science techniques to explore HSD topics; and 6) developing and supporting instrumentation and data resources such as cognitive neuroimaging and longitudinal surveys to upgrade the measurement and analysis of information from diverse sources. COSSA strongly supports the implementation of the priority and its increased funding.

In addition to the priority area, the NSF budget includes \$20 million for a second year of funding for **Science of Learning Centers**. The SBE sciences are in the forefront of providing research and evidence for improving how our children learn and survive in the modern, complex societies in which we live. Fundamental research by developmental psychologists, cognitive scientists, sociologists, and economists, has revealed a wealth of data about how children think and learn and how these processes are mediated by family demographics, community politics, and the structure of the schools. COSSA strongly supports the continued funding of the Science and Learning Centers.

Furthermore, increased support will enhance funding for research in the learning and developmental sciences to integrate studies of cognitive, linguistic, social, cultural, and biological processes related to children and adolescent learning. This support will include research funded under the **Children's Research Initiative (CRI)**. We appreciate the Committee's willingness to ensure that the CRI remains an open competition where the merit review process is allowed to work unhindered by any attempts at privileging certain institutions.

COSSA also strongly supports the funding for research on the **ethical, legal, and social consequences of technological change**. Both the Information Technology and Research area and the Nanoscale Science and Engineering area include funding to answer important questions on how the results of this cutting-edge research will impact humans and society. From increasing privacy concerns, to the ethics of genetic testing, to how we relate in Web based communities, to how our political system works, SBE scientists are exploring many aspects of this issue.

It is also clear that the NSF's new emphasis on **Environmental Research and Education** provides exciting opportunities for the SBE sciences. The recent report: *Complex Environmental Systems: Synthesis for Earth, Life, and Society in the 21st Century*, outlines a research agenda that includes Coupled Human and Natural Systems as a key area. This area integrates population, ecosystems and socioeconomic models to understand and enable response to issues such as landscape fragmentation, spread of pathogens and water resources. SBE will also fund centers focusing on Risk Analysis and Decision-making on global climate change.

SBE continues to maintain support for major **long-term data bases** such as the Panel Study on Income Dynamics, the General Social Survey, and the American National Election Studies. These three data series paint a portrait of American's attitudes and behavior over almost 40 years. In addition, SBE is providing support for the National Historical Geographic Information System, which will provide free public access to U.S. Census databases from 1790 to the present. By digitizing the data, place-specific information can be utilized by geographic information systems.

Research in the SBE sciences continues to examine the ever more complex and important human dimensions of issues and generates new knowledge and insights to help us understand human commonalities and human differences. Basic research in these

disciplines also develops information that policymakers can use later to formulate solutions to individual and societal problems. The research portfolio is diverse and supports science of enormous intellectual excitement and substantial societal importance. It deserves enhanced resources.

The **Science, Resources and Statistics (SRS)** division is an important resource for the whole Foundation and for the entire science and engineering community. The high quality data it provides to researchers and policymakers about the science and technology enterprise merits generous support. The redesign of its survey samples to reflect the changes discovered in the 2000 Census explain the large jump from FY 2002 to FY 2003. As SRS continues to improve its products its support should be increased.

Other Issues

COSSA supports the increased funding proposed for the **Graduate Fellowship programs**. Raising the stipend to \$30,000 will attract more excellent students into graduate study in all the sciences. The enhanced stipends should not occur with a corresponding reduction in the number of these prestigious, portable, student-controlled fellowships for graduate training.

COSSA also strongly supports continuation of the **Interagency Education Research Initiative (IERI)**, a collaboration among the NSF, Department of Education, and the National Institute of Child Health and Human Development. The IERI provides significant support over a period of time to conduct meaningful studies of factors affecting student achievement and to seek and disseminate answers to how we can improve.

Conclusion

COSSA urges the Subcommittee to significantly boost support for the National Science Foundation in FY 2004. NSF will then provide the fundamental research that will help the world stay healthy, prosperous, and secure. In addition, with increased funding the Social, Behavioral and Economic Sciences Directorate can support basic research in these disciplines to help meet the needs of this country and the world for evidence-based policies to work on the complex problems affecting us all.

Thank you for the opportunity to present our views.